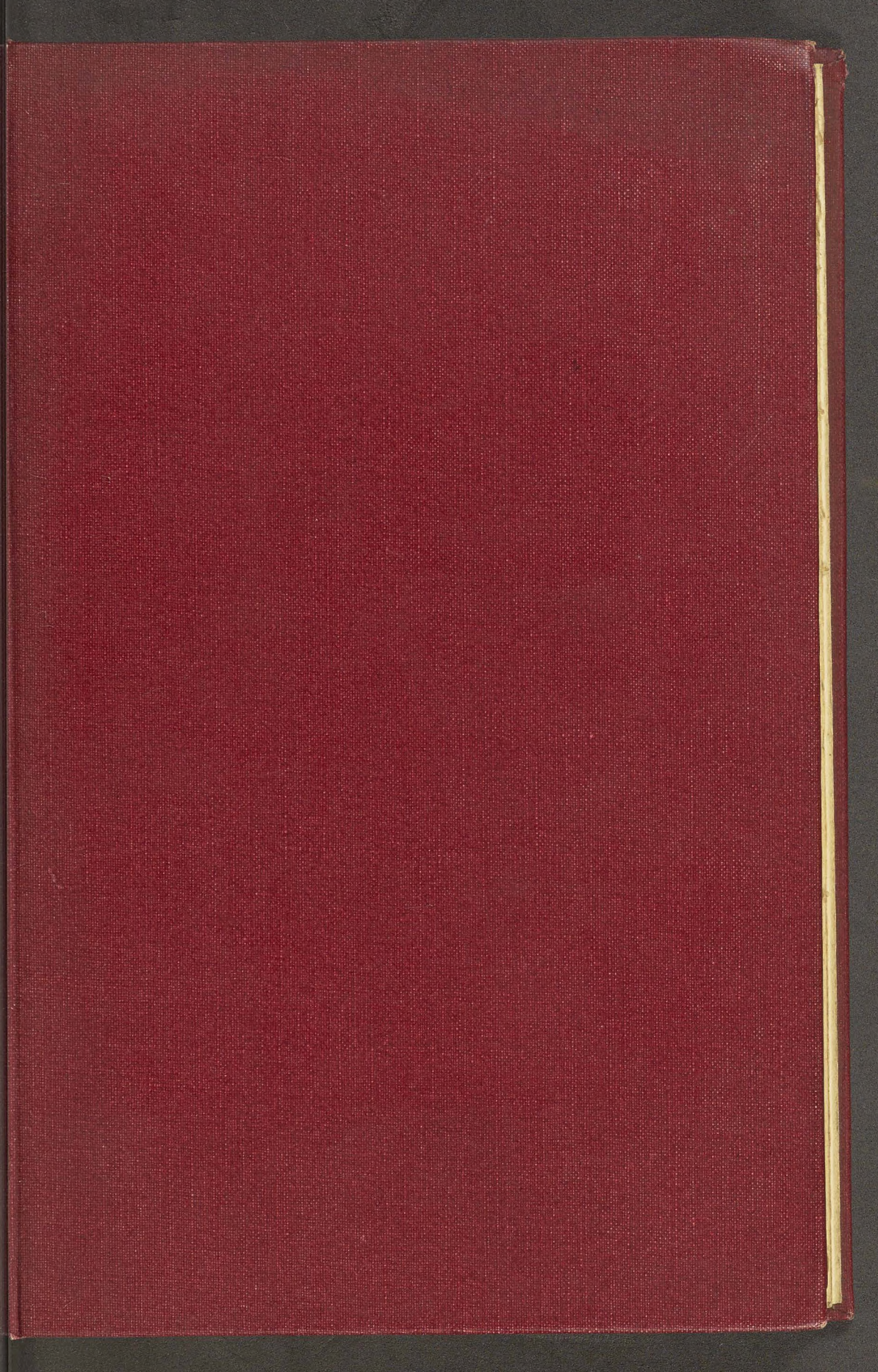
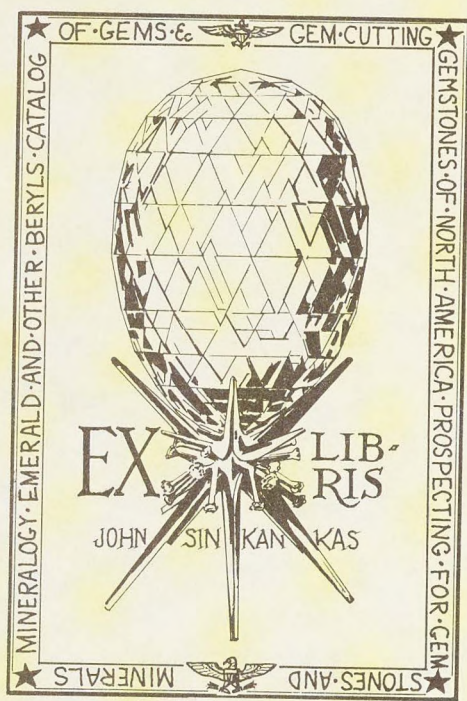
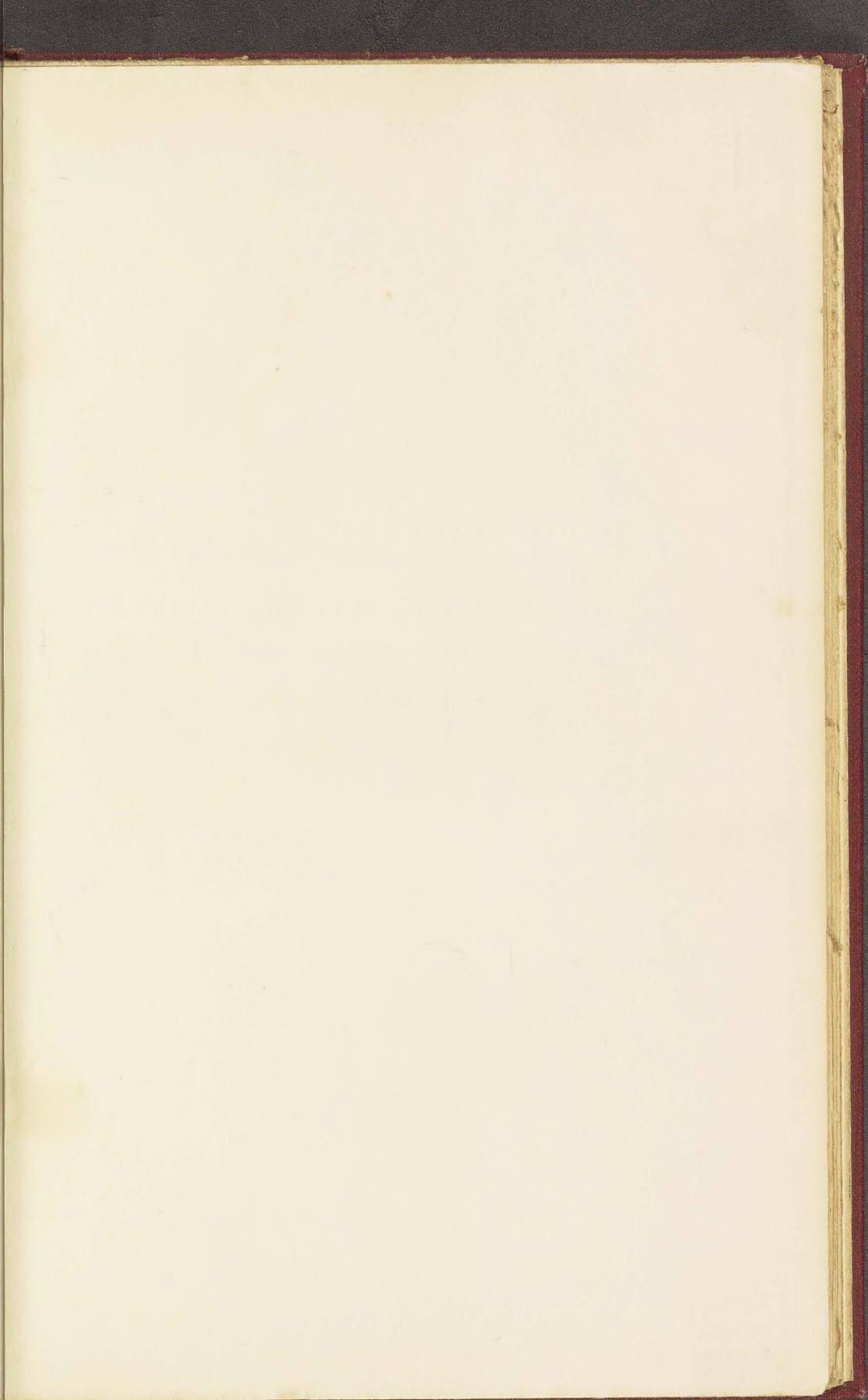




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MAGICAL JEWELS

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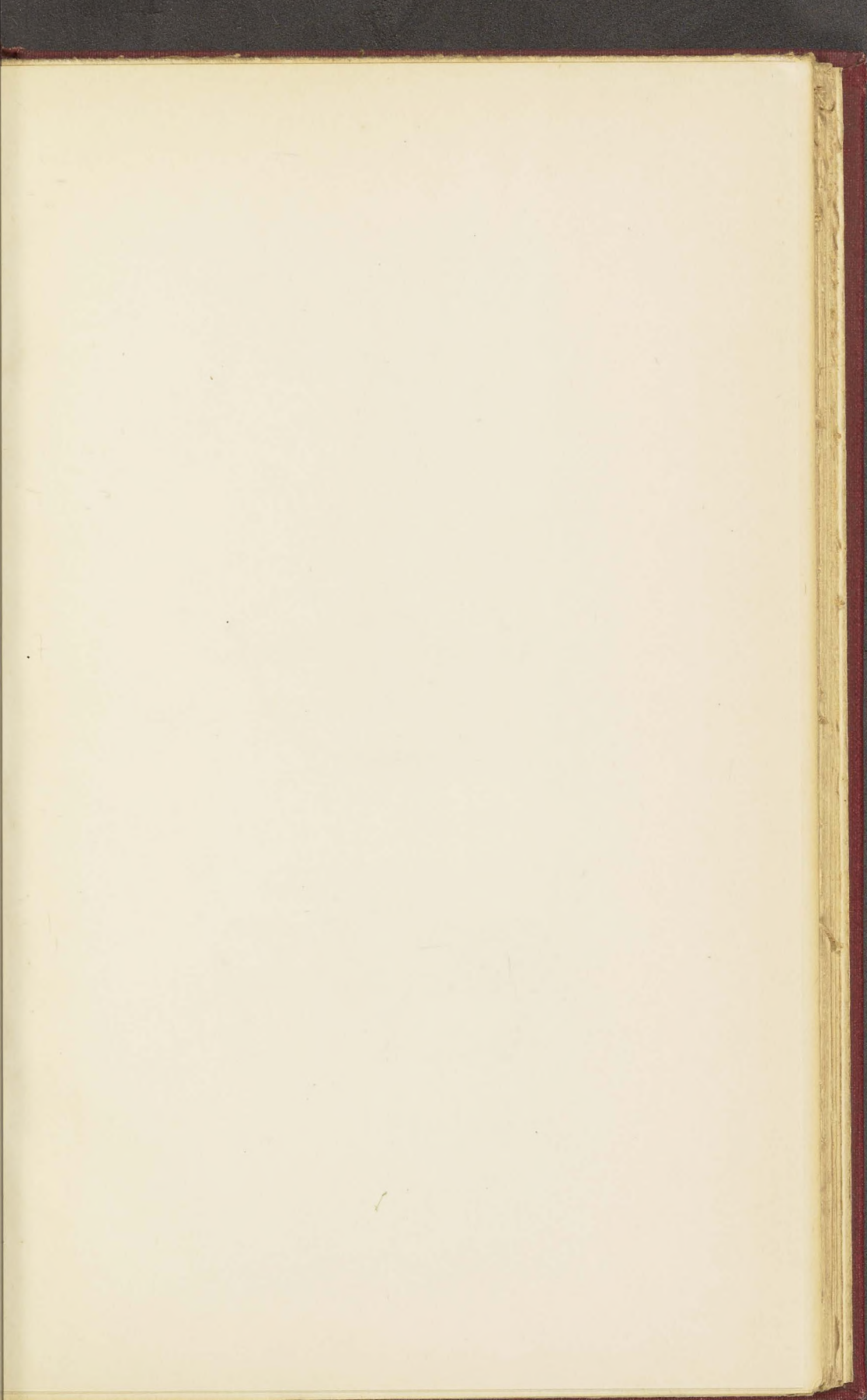
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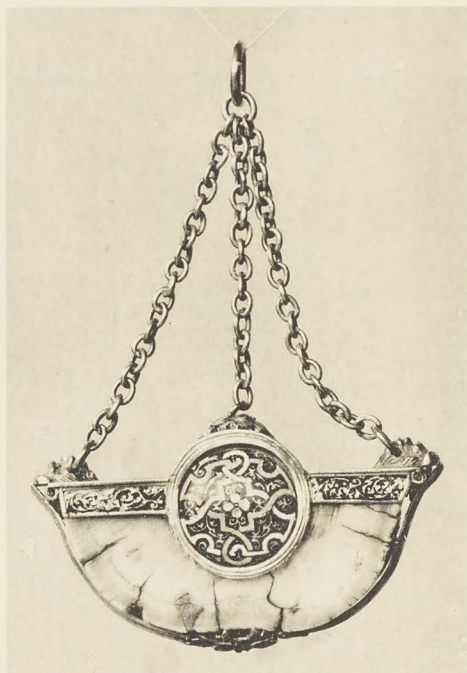
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THE CAMPION PENDANT

MAGICAL JEWELS

of the

Middle Ages and the Renaissance

particularly in

England

BY

JOAN EVANS, B.LITT.

Librarian of St. Hugh's College, Oxford



OXFORD

AT THE CLARENDON PRESS

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1922

THE sciences themselves, which have had better intelligence and confederacy with the imagination of man than with his reason, are three in number; astrology, natural magic, and alchemy: of which sciences, nevertheless, the ends or pretences are noble. For astrology pretendeth to discover that correspondence or concatenation which is between the superior globe and the inferior: natural magic pretendeth to call and reduce natural philosophy from variety of speculations to the magnitude of works: and alchemy pretendeth to make separation of bodies which in mixtures of nature are incorporate.

FRANCIS BACON, *The Advancement of Learning*, 1605, Book I, iv. 11.

P R E F A C E

CERTAIN limits of time and place have been set to this study of the belief in the virtues of gems and jewels. The main field of investigation has been Great Britain, and the beliefs and writings of other countries concerning jewels have been studied as helping to form the tradition formerly current in these islands. For this reason the Eastern lapidaries have been dealt with summarily, and those of China and Japan omitted. The medicinal use of precious stones otherwise than as amulets has only received incidental consideration. Further, the investigation ends with the eighteenth century, and therefore excludes the charms and mascots of the modern jeweller and the 'lucky-stones' of the modern soldier.

My thanks are due to Sir John Sandys, Professor D. S. Margoliouth, Professor J. A. Stewart, Professor P. Studer, Dr. R. R. Marett, M. F. de Mély, Mr. Henry Balfour, Mr. Stephen Langdon, Mr. F. C. Conybeare, Mr. G. McN. Rushforth, Mr. G. F. Hill, and Mrs. Simpson for help on points of detail; to M. Omont of the Bibliothèque Nationale, the Master of Jesus College, Cambridge, the Dean of Winchester, and the Librarians of Gresham College, Gray's Inn, Pembroke College, and Caius College, Cambridge, and of the Cathedral Libraries of Durham, Lincoln, Salisbury, and Winchester for information respecting manuscripts in their care; and to the officials of the Manuscript Room of the British Museum and the Staff of the Bodleian Library. To Dr. and Mrs. Singer I owe the privileges of the History of Science Room in the Radcliffe Camera, many references, and much generous help and encouragement, and to the Principal of my College the opportunities for research which she has most kindly granted me.

JOAN EVANS.

ST. HUGH'S COLLEGE,
OXFORD.

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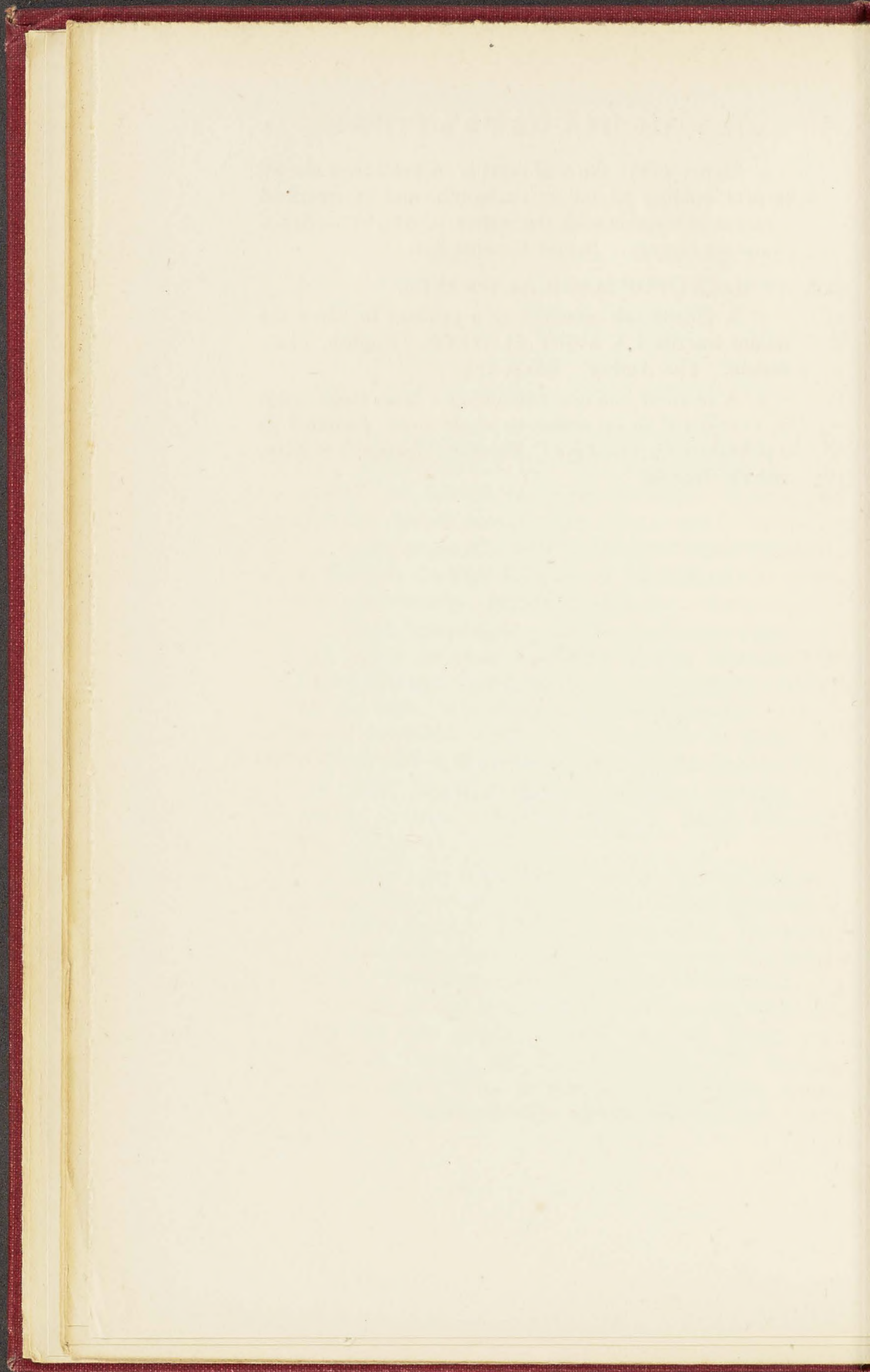
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INTRODUCTION

THE anthropologist who wishes to differentiate between Religion, Magic, and Science is confronted with the problem of determining three branches of human thought, distinct in their final manifestation, but representing three attitudes of mind towards the relations existing between the different parts of the universe.

Religion is involved in an attitude of mind which succeeds in apprehending the existence of an agency superior to man, by whose will and power the course of the world is ordered. Magic is involved in an attitude which attempts to regulate the course of the world by the compulsion of agencies, personal or impersonal, carrying out the mandates of men in occult ways outside the province of human reason. Lastly, Science is involved in the attitude that attempts the discovery and comprehension by force of the human intellect of the system of intelligible relations that govern the phenomena of the universe.

It is clear that magic and science must develop in close and almost inextricable connexion until man has learnt clearly to distinguish between knowledge based upon logical premises and symbolism based upon imagined powers and correspondences in nature; and it is equally clear that magic is closely affiliated to religion, in the recognition of supernatural agencies in control of the forces of nature, which is usually if not necessarily implied in its efforts to subject such forces to the human will through irrational means. Further, the conception of the universe established by the received theology is likely to affect, and to be affected by, the current hypothesis of its working established by contemporary science.¹

¹ It is characteristic of a scientific age that bases its theology and its mysticism on tradition, whether outworn or not, that none of the great scientific discoveries of modern times has affected the received religion, nor, except for a few catchwords, the debased commercial forms of magic that still survive.

Thus it must be remembered in any definition of their respective frontiers that the anthropologist will be apt to put into the category of magic much that is based upon the fallacious and unfamiliar premises of obsolete science, and much that is derived from the tradition inherited from a religion more ancient and more remote than the age in which its last manifestations appear.¹

This difficulty of definition obtrudes itself even into the classification of amulets, talismans, and magical jewels. In this field of inquiry both Science and Religion encroach upon the territory of Magic; lapidaries, in which a magical virtue is ascribed to every gem they enumerate, are also the text-books of the medical and mineralogical science of their time; and a prayer, rationally used as the means of confirming the religious and spiritual bond existing between the worshipper and his god, becomes the instrument of magic through the irrational attempt to make that bond more permanent by writing the prayer upon some lasting material and wearing it as a talisman.²

Magic is in its essence traditional: since it is not based upon intellectual knowledge, it can hardly be arrived at empirically. Therefore the magic of any region of which the history is known must be studied in relation to the source of its traditions and the trade-routes of thought by which they have been acquired. As the Egyptians, whose principal concern was the maintenance of spiritual life after death, have influenced the ideas of a future life of later peoples, so the Babylonians, concerned chiefly with the protection of their earthly life from the baneful influences that threatened it, have influenced the later development of astrology, divination, and prophylactic magic. From a living and reasonable part of their national religion the foundation of the traditional and irrational magic of their successors was derived.

¹ See Cumont, *Astrology and Religion among the Greeks and Romans*, p. xviii et seqq.

² Cf. Cornelius Agrippa, *De Occulta Philosophia*, i, cap. lxxiii: 'Scriptura autem ipsa ultima mentis expressio est, sermonis vocisque numerus, collectio, status, finis, continentia et iteratio faciens habitum, qui unius vocis actu non perficitur.'

Their religion not only identified the planets and stars with its divinities, but also recognized the existence of a definite relation between their beneficent or maleficent powers and certain parts of the universe. The signs of the Zodiac—all of Babylonian origin—each ruled a particular part of the human body; the planets, according to the degree of their brilliance, were associated with the metal of corresponding lustre. Since each part was thus connected with another and a greater part, on the one hand events arising from this connexion might be predicted, and on the other, through changes in this relation which could be effected by human agency, evil influences might be mitigated or counteracted. Hence arose the systems of divination, prophylactic magic, and exorcism.¹ From this source is derived much of that magical system which penetrated Asia Minor and Syria and reappeared in Hebrew and Hellenic culture. The magic of Egypt, derived from the official religion and, like it, chiefly preoccupied with the after-life, had a smaller sphere of influence. None the less it is in the cosmopolis of Alexandria that the union of Gnosticism and the various magical systems of the ancient world with Eastern astrology and the Neoplatonic conception of the universe developed that system of Hermetic philosophy which was to exert a lasting influence upon European magic. The Italian genius was both superstitious and receptive of exotic thought and religion; but Rome added little to the content of magic and, indeed, retained officially only the rite of divination. The persecution of its professors under Augustan law gave it the seal of its degradation, and the Christian condemnation of all pagan rites as magical added territory to its province and confusion to its definition.

The fatalism implied in astrology was peculiarly repugnant to the Christian idea of Providence, and this science was therefore condemned by Athanasius, Cyril, Arnobius, Gregory the Great, Basil, and Augustine.² Men's belief in magic and

¹ More than half of the extant Assyrian documents are presages or incantations. Fossey, *La Magie assyrienne*, p. 3.

² Maury, *La Magie et l'Astrologie dans l'Antiquité et au Moyen Age*, 1869, p. 97.

astrology, however, had become too much a part of their heritage of thought to be stamped out by condemnation. The living theory and practice of astrology passed into the keeping of the Arabs, but some tradition of astrological and magical lore was included in the inheritance of Greek and Roman science preserved if not increased by the early Middle Ages. Just as the Greek Renaissance of the fifteenth century was a revivification and not a re-discovery of humanism, so the Arab Renaissance of the thirteenth century was a revivification and not a re-discovery of science and, incidentally, of astrology.

The Church, founding men's conception of the world upon the rock of revelation and the substructure of Christian apologetics, drew this heritage of scientific lore within the net of her symbolism in the *Summae* of her learned sons. Further, she added to the body of magical pseudo-science inherited from the pagan East, then almost incomprehensible, a body of practice that had become Christian and was almost unconsciously magical: miraculous relics, charms, and talismans invoking the aid of the Trinity, the Virgin, the Saints, and all the hierarchy of Heaven. *Religio* ever tends to become *κατάδεσμος*.

I

MAGICAL JEWELS AND GEMS IN THE ANCIENT WORLD

PERSONAL ornaments and jewels may be classified as useful or purely decorative; in the first class fall pins, brooches, buckles, and other jewels which, however ornamental, are yet practical in origin, and in the second necklaces, pendants, bracelets, and the majority of rings, which perform no useful function. It would, however, be false to suppose that the origin even of these is purely decorative. Rarity, strangeness, and beauty have in them an inexplicable element, and the inexplicable is always potentially magical. The belief in the magical properties of stones and gems is, indeed, of immemorial antiquity; a cuneiform inscription gives a list of stones facilitating conception and birth and inducing love and hatred,¹ and another mentions a ring set with a stone worn as an amulet.² Even in the ages when written records fail us, we have no reason to suppose the absence of such a belief. With the Magdalenian skeleton found at Duruthy was discovered a necklace of fifty canine teeth, three of lion and the rest of bear, most of them ornamented in some fashion: one with the figure of a seal, and one with that of a pike.³ Again, in one of the early neolithic strata of the cavern of Mas d'Azil the perforated teeth of deer and other animals were found arranged as if they had once formed necklaces.⁴ Survivals among civilized nations and parallel practices among savage peoples confirm the view that such necklaces are usually of magical intention. Other objects found in prehistoric graves—such ornaments as part of an ammonite, found in a barrow at Rudstone, fossil echini from a barrow on the Dunstable Downs,

¹ Rawlinson, *Cuneiform Inscriptions of Western Asia*, ii, No. 2, 10-15.

² *Ibid.* iv, No. 7, 38.

³ Munro, *Prehistoric Britain*, p. 81.

⁴ *Ibid.* p. 106.

and fossil shells from French dolmens—were also probably worn as amulets.¹

The belief in the virtues of rare stones passed into the scientific knowledge of the Babylonians and hence found a place in their astrological cosmos. Since to them all things were subject to the influence of sidereal powers, it was natural that in Babylon the 'fetish' stone should become the magical talisman by association with such a supernatural power. Indeed, the word talisman itself is derived from the Arab version of ἀποτέλεσμα, the influence of the heavenly bodies upon the universe.² Hence the object received the stamp of that which influenced it: the talisman received its final characteristic of engraving or inscription.

Many of the figure designs on Babylonian engraved cylinders may be primarily talismans, and only secondarily seals;³ and still more definite evidence is afforded by a series of seals of the Cassite period⁴ engraved with prayers and adjurations to bring good fortune. The Collection Le Clercq in Paris includes examples with such inscriptions as:

To the Moon God.
O Nannar (the new moon)
prince who rejoices the souls,
hero wise in decision, perfect in counsel and advice,
Crescent of heaven,
Judge of the universe
May the servant thy worshipper
Have a favourable name.

and

May the executor of this seal
be strong, be renewed,
be happy, and live to old age.⁵

¹ Evans, *Ancient Stone Implements of Great Britain*, p. 457 et seqq.

² Cf. the definition given by Thiers, *Traité des Superstitions*, 1679, p. 303: 'Les Talismans . . . certaines figures, qui sont de l'invention des Philosophes arabes. . . . Elles sont faites sur les pierres ou sur les métaux de sympathie, qui répondent à certaines constellations.'

³ See Fossey, *La Magie assyrienne*, p. 108.

⁴ 16th–14th century B.C.

⁵ I owe these translations to the kindness of Mr. Stephen Langdon. Cf. the Assyrian cylinder, second half of the seventh century, with incantation to Lugalgirra. Beazley, *Lewes House Collection*, p. 3.

The stones themselves, since their colours were associated with the colours of the planets, had a place in the astrological scheme; and similarly the Egyptian tradition attributed stones to each day of the month and each decan of the signs, as well as to each of the planets.¹

We are comparatively ignorant of the early course of the development of belief in the properties of gems apart from their talismanic impressions and astrological significance. The earliest surviving treatise, the *Περὶ Λίθων* attributed to Theophrastus, was probably written during the archonship of Praxibulus, 315 B.C.,² and treats of the stones used for gem-engraving in the classical period. It probably formed part of a larger work on mineralogy.

Hippocrates had adopted a method of classifying the parts of the universe as *θερμόν*, ἢ *ψυχρόν*, ἢ *ξηρόν*, ἢ *ὕγρόν*,³ and this helped Plato to establish the theory of the four elements. He considered stones to be engendered of the *ὕγρόν*, or watery element, in combination with the *χυτόν*, or fusible element.⁴ This theory is codified by Theophrastus, who makes the further divisions of *φύσις* and *δύναμις*, but his mineralogy is still hampered by the want of exact terms; he is forced to include magnet and emery alike under *ἀδάμας*, and emerald, aquamarine and beryl, under *σμάραγδος*. By dividing stones into male and female, he originated the theory of stones breeding, which still finds common credence in the English countryside. He gives few examples of fabulous origins, and fewer still of magical properties; one of the most interesting is that of the emerald "*πρὸς τὰ ὄμματα ἀγαθή*".⁵

Here already we have the characteristic of the early Greek lapidaries expressed: the qualities attributed to gems are essentially medicinal. Dioscorides in the fifth book of his *Materia Medica* considers some two hundred 'stones' from

¹ Bouché-Leclercq, *L'Astrologie grecque*, p. 316.

² Zeller, *Aristotle and the Earlier Peripatetics*, tr. Costelloe and Muirhead, p. 378, note 6.

³ vi, § 7, p. 51, in *Œuvres complètes*, tr. Littré.

⁴ *Timaeus*, Teubner text, pp. 365-9.

⁵ ed. Sir John Hall, 1774, p. 106.

a medicinal point of view, and though the majority are oxides and other minerals, a few authentic gems are also included. He advises the use of 'sapphire'¹ (that is lapis lazuli) against the bites of serpents; of selenite² against epilepsy, and of coral³ for skin troubles, sore eyes, and blood-spitting. It is in treating of the preparation of stones to be used as a remedy that he marks an important difference in the classification of gems; the more friable are to be reduced to powder and administered as emulsions or potions; but those not easily powdered, such as aetites,⁴ valuable in childbirth, ophites,⁵ a cure for snake bites, selenite and jasper⁶ are, he says, to be worn as phylacteries. The belief in the virtues of gems has here reached the stage ably defined by M. Berthelot in his study of the sister science of alchemy:⁷ 'La raison introduisait à son tour, pour ainsi dire subrepticement, ses règles précises dans les recettes d'exécution pratique; en attendant le jour où elle arriverait à tout dominer. De là une période nouvelle demi-rationaliste et demi-mystique, qui a précédé la naissance de la science pure.'

For the first time the use of gems as medicinal amulets was both recognized and affected by science, and with that recognition and that influence began a cycle of mineralogical history that was to last for two thousand years.

The next important mineralogical lapidary which has come down to us is that of Pliny. Of the sources from which he borrowed only the names are known to us, with the exception of the *Περὶ Λίθων* of Theophrastus and the Orphic *Lithica*. They include Sotacus, probably a physician at the Persian Court, whom he describes⁸ as one of the most ancient writers on the subject; Sudines and Zenothemis; Nicander; Democritus of Abdera; Zoroastres the Magian; Callistratus; Metrodoros of Scepsis; Zachalias the Babylonian; Archelaus of Cappadocia; Iacchus; Bocchus; Juba II of Numidia; and Asarubas, a Carthaginian contemporary. Pliny gives several instances of magical properties ascribed to gems, but his scepticism is

¹ v, cap. clvii.

² v, cap. clix.

³ v, cap. cxxxix.

⁴ v, cap. clxi.

⁵ v, cap. clxii.

⁶ v, cap. clx.

⁷ *Les Origines de l'Alchimie*, 1885, p. vii.

⁸ xxxvi, cap. xxxviii.

unwavering. The women of the valley of the Po, he says, wear amber necklaces as a cure for goitre,¹ and some use is made of it in medicine; 'sed non ob hoc feminis placet.'² Children wear it as an amulet, and Callistratus even recommends it to be worn by those of all ages against lymphatic humours, fevers, and disease. To agates Pliny concedes the property of quenching thirst if held in the mouth; but it is in a spirit of protesting unbelief that he continues: 'The magicians make other distinctions in reference to these stones; those, they tell us, which have spots upon them like a lion's skin, are efficacious as a protection against scorpions; in Persia, they say, these stones are used by way of fumigation for arresting tempests and hurricanes, and for stopping the course of rivers, the proof of their efficacy being their turning the water cold, if thrown into a boiling cauldron. To be duly efficacious, they must be attached to the body with hairs from a lion's mane. The stone that is of a uniform colour renders athletes invincible.'³ Pliny, in fact, wrote his lapidary as a man of science, taking his information at second-hand, but criticizing it rationally. This remained the traditional Roman point of view; the third or fourth century *Collectanea Rerum Memorabilium* of C. Julius Solinus,⁴ in so far as it describes the stones found in the countries it enumerates, does so in the language of Pliny. Hardly any magical properties are recorded in consequence, except that 'Indicorum lapidum in adamantibus dignitas prima, utpote qui lymphationes abigunt, venenis resistunt, mentium vanos metus pellunt'.

In Alexandria, however, the scientific or mineralogical type of lapidary had suffered a great change in consequence of the influence of the schools of Healers founded about 148.⁵ Their methods were derived from the *μαγεία* of the East rather than from the science of Greece, and the writings which show their influence are in consequence full of stories of magical origins and virtues. The most characteristic of these treatises are based upon *litteromancy*, and are divided into twenty-four

¹ xxvii, cap. 11.

² xxxvii, cap. 12.

³ xxvii, cap. 54.

⁴ ed. Mommsen, 1864.

⁵ de Mély, *op. cit.*, iii, p. xlvi.

chapters, each corresponding with a letter of the alphabet. The pseudo-Plutarchan *περὶ ποταμῶν* has each chapter further divided into four parts, according to the elements: that of water treating of rivers; that of earth, of herbs; that of air, of mountains; and that of fire, of stones. The most important of these litteromantic treatises is that known as the *Kyranides*;¹ of which the prologue states the first book to be the work of Cyranus King of Persia, the second that of Harpocraton of Alexandria, and the third, of natural virtues divided according to sympathies and antipathies, of Hermes. This was translated into Latin by Gerard of Cremona, who died in 1175,² and has left definite traces of its influence upon the scientific literature of the Middle Ages.

The *Kyranides* is essentially a medical book, but its medicine is hidden behind an elaborate façade of alliteration. Each chapter contains descriptions of a herb, a bird, a stone, and a fish, symbolizing earth, air, fire, and water. The name of each begins with the letter by which the chapter is designated, and occasionally the magical connexion thus established between the four objects described is summed up by a use being prescribed for one in which the other three are included. Under B, for instance, are included *βράθυος*, a kind of cypress; *βρύσις*, a crow; *βύσσα*, a crab, and beryl. Under the last we find the following: 'Take then a beryl, and engrave upon it a crow, and beneath its claws a crab; then put beneath a little sprig of cypress, a little of the bird's heart and part of a crab, and wear it how you will.'³

It is difficult to establish the date of the *Kyranides* with any exactitude, but there can be little doubt as to its place of origin. Its medley of Greek festivals, Mithraic rites, Babylonian astrology, Jewish religion, and Greek medicine was hardly possible except at Alexandria. The first book shews Gnostic influence in the words and phrases to which power is

¹ de Mély, *Les Lapidaires grecs*, iii, p. 33.

² See B. M. Sloane 284, fol. 90-129, fifteenth century.

³ Many other examples will be found in the Latin version: *Kirani Kiranides et ad eas Rhyakini Koronides*, printed in 1638. See de Mély, *Revue de l'Art Chrétien*, 1893, p. 100.

ascribed; the Abraxas, indeed, is missing, but we find mystical powers attributed to ϕ , *MAMENAKAA*, and the peacock's cry of *AIΩ*. Its insistence on the forces of sympathy and antipathy is derived from the Gnostic dualism; and it invokes Jesus and Dionysus in the same breath.¹ It is the source of the mediaeval fables of the rhinoceros, or unicorn; of the pelican, whose self-sacrifice found her a place in the iconography of the Christian Church; of the salamander, and of the plover, who breathing the breath of a sick person bears his sickness from him heavenwards.

As far as mediaeval lapidaries are concerned, the *Kyranides* appear to be the source of the belief in the properties of the toad-stone.² 'The earth-toad, called *saccos*, whose breath is poisonous, has a stone in the marrow of its head. If you take it when the moon is waning, put it in a linen cloth for forty days, and then cut it from the cloth and take the stone, you will have a powerful amulet. Hung at the girdle, it cures dropsy and the spleen, as I myself have proved.' We also find expression of the belief in the presence of a wonder-working stone in the head of a serpent.³ 'After the snake has been hung up and exorcised with laurel smoke that it may vomit forth the stone, pronounce these words: "By the God who created it, whom thou justly adorest with thy double tongue, if thou wilt give me the stone, I will do thee no harm, but will send thee back to thine own home." And when it has given up the stone, take a piece of silk and keep it as a treasure. And if it refuses, take a knife and split its head, and you will find the stone, such as many other animals have, possessing natural virtues.' The particular virtues ascribed to this stone are absorbent, so that it is valuable as a cure for dropsy and rheumatism.⁴

The other Alexandrian lapidaries, if less symbolic in form, are equally magical in substance. That ascribed to Socrates

¹ de Mély, *op. cit.*, iii, p. lxvii.

² ii. B.

³ de Mély, *op. cit.*, iii, p. 136. Cf. *Folklore*, 1921, xxxii, p. 265.

⁴ Cf. Philostratus, *Life of Apollonius of Tyana*, iii. 8: 'They say, indeed, that the heads of dragons contain brilliant precious stones of all colours, which have marvellous properties.'

and Dionysius¹ attributes magical virtues to a considerable number of gems, and in almost every case gives directions as to the symbol to be engraved upon them to intensify their power. It sometimes gives as a reason for this the relation existing between the symbol and the force that influences the stone. The sardonyx for instance, "φυλακτήριον μέγα ἐστὶν . . . λαμβάνουσι δὲ αὐτὸν μηνὶ Ξανθικῷ² ἡλίου ὄντος ἐν Κριῷ καὶ γλύφουσι κριδὸν καὶ Ἀθηναῶν καρδίαν κρατοῦσαν." The figures of other Greek divinities are also prescribed in other cases: "Λίθος ὑάκινθος. Γλύφεται ἐν τούτῳ τῷ λίθῳ τῷ καθαρῷ Ποσειδῶν ἔχων δελφίνα τῷ δεξιῷ ποδὶ καὶ τρίαῖναν τῇ δεξιᾷ χειρί. Τελέσας οὖν οὕτως, ἔχε φορῶν τὸ δακτύλιον, καὶ ποιεῖ πάντα ὅσα ὁ σμάραγδος. Ἀλλὰ καὶ τοὺς διὰ θαλάσσης ἐμπορευομένους ἀπὸ κλύδωνος ῥύεται." The Sard, again, "Γεγλυμμένην ἔχει Ἄρτεμιν τελείαν καὶ παρισταμένην αὐτῇ ἔλαφον. Ποιεῖ δὲ τὸν φοροῦντα ἀνδρεῖον, γοργόν, γενναῖον, εὖψυχον. ἀπωθεῖται δὲ καὶ τὰ ἀπὸ τῶν πολεμίων ἐπιφερόμενα τραύματα, καὶ περιάσας τὸν λίθον εἰς τὸν τόπον οὐκ ἔῃ τὸ τραῦμα οἰδῆσαι. . . . Γλύφεται δὲ καὶ Ἄρης ὁ δεσπότης τοῦ λίθου. τούτῳ γὰρ ἀνάκειται." More rarely the sigil is a written word of Gnostic significance, such as is suggested for the agate: "Οἱ ἀχάται μεγίστην δύναμιν ἔχουσιν" εἰσὶ δὲ Ἑρμοῦ . . . φορούμενος δὲ ἐν τῷ δακτυλίῳ ποιεῖ τὸν φοροῦντα εὐπροσήγορον καὶ εὐόμιλον καὶ εὐπειθῆ καὶ δυνατὸν καὶ ἐν πᾶσι περιχαρῆ εὖρωστόν τε καὶ εὖχρουν. Τελεῖται δὲ οὕτως. Λαβὼν βελόνην χαλκῆν, γράφε ἐν αὐτῷ τὸ ὄνομα τοῦτο ἸΑΧΩ, καὶ ὑπόθεσ εἰς τὸν δακτύλιον τὸν λίθον, καὶ ἐντυπώσας φέρει."

An important Hellenistic lapidary is that ascribed to Damigeron. Some fragments of the original Greek text are preserved in the second book of the medical collections of Aetius,³ but the whole text survives only in a Latin translation, ascribed by Rose to the first, and by Beck to the fifth or sixth century A.D. This has been published by E. Abel⁴

¹ MS. Vatican 578; de Mély, *op. cit.*, ii, p. 175.

² Syro-Macedonian Calendar.

³ See Rose, in *Hermes*, 1875, ix, pp. 471-91; de Mély, *Les Lapidaires grecs*, ii, p. xiii.

⁴ *Orphei Lithica, accedit Damigeron de lapidibus*, Berlin, 1881. It was earlier published in Pitra, *Spicilegium Solesmense*, iii, p. 324 et seqq.

from a fourteenth-century manuscript in the Bibliothèque Nationale.¹ This manuscript he considered to be unique, but I have found in one of the Hatton manuscripts of the Bodleian² an earlier manuscript of the same text that differs in some important points from that in the Bibliothèque Nationale. The late Doctor Bannister considered it to have been written in France between 1100 and 1120, and tentatively suggested Tours as its place of origin.³

A third manuscript, written in the late twelfth century, and formerly belonging to St. Augustine's, Canterbury, is now in the Bibliothèque Nationale,⁴ and except for certain corruptions of the text agrees with the Oxford manuscript.

The lapidary of Damigeron is not only intrinsically important, but is also of interest for the part it played in the Middle Ages, since it formed the principal source of Marbode's famous lapidary.⁵ It is from Damigeron that he took his prologue; the *incipit* of the Hatton manuscript is as follows: 'Hic continentur epistolae due, quas Euax⁶ Arabie rex misit tiberio imperatori. De nominibus & uirtutibus lapidum qui in artem medicine recipiuntur, qui in orientis partibus inveniuntur.' The first letter describes the 'mystery' of stones as being an Egyptian science, and offers the ensuing treatise as its most authoritative expression: 'Iuro autem tibi per summum patrem deum quod meliorem librum

¹ MS. lat. 7418, fol. 116-23 v.

² Hatton MS. 76, fol. 131-9; Appendix A. The same volume contains the OE. version of the Dialogues of Gregory the Great; the *Admonitio ad Filium Spirituale* of St. Basil, attributed to Aelfric; and the OE. *Liber Medicinalis*, all of which were at Worcester at the end of the twelfth century, when Latin glosses were written in them by a Worcester monk. See Craster, *Catalogue of the Hatton MS.* (not yet published).

³ The script has certain peculiarities: e.g. the use of an elevated *s* followed by a long *s* in such words as *gratissimus*.

⁴ Nouv. Acq. lat. 873, fol. 176-89. See P. Meyer in *Romania*, xxxviii, 1909, p. 487, and M. R. James, *The Ancient Libraries of Canterbury and Dover*, p. 274.

⁵ See p. 33. The Hatton MS. is interesting as being nearly contemporary with Marbode (d. 1081).

⁶ Some (not the best) MSS. of Pliny's *Natural History* give Evax as the author of a work *de simplicium effectibus* addressed to Tiberius.

Aegyptus non habet, while the second acknowledges splendid gifts sent '*per centurionem Lucinium Frontonem nomine*'.

The Paris manuscript then gives an account of the influence of seven signs of the Zodiac upon stones. '*Lapides ad septem signa pertinent; subditi etiam et septem lapides, quos ad curam homines in phylacteriis habere deberent; sunt enim sani et potentes.*' Chrysolite is ascribed to Leo, astro-selinus to Cancer, haematite to Aries, ceraunius to Sagittarius, demos to Taurus, lapis arabicus to Virgo, and ostracitis to Capricorn. The Oxford manuscript omits this paragraph altogether, and I am inclined to consider it an interpolation of the thirteenth or fourteenth century.

The rest of the Oxford text agrees for the most part with the Paris manuscript, though differing in the order of its paragraphs, offering considerable variety of reading, and including several stones—asius lapis, alabastrites, phrygius, crystal, pyrites, and pantheros—that do not appear in the later version. In all forty-eight stones are considered, as against fifty in the Paris manuscript. To all of these magical virtues are ascribed—adamant gives victory, and averts evil dreams, poison, and strife; agate avails against poisonous wounds; alectorias makes its wearer invincible, and so on. In several instances directions are given for the wearing of the stone: for adamant, '*include in nuce argentea, et consecratum porta . . .*', and again, '*Conficies itaque anulum ex auro, vel argento, vel ferro, aut aere, tortilem et gere circa sinistrum brachium.*' For many stones the appropriate sigil is prescribed. The emerald, for instance, if thus perfected and sanctified, gives liberty. '*Oportet autem eum perficere sic: adeptus lapidem, iube sculpere scarabaeum, deinde sub ventre eius stantem Isidem, postea pertundatur in longitudinem. Tunc autem, auream fibulam immittens in dicto, porta consecratum, et fac locum quemdam bonum praeparare, et ornare te et cetera quae tua sunt, et videbis gloriam lapidis, quam ei Deus concessit.*' Coral is to have engraved upon it, '*nomen noctilucae, hoc est Hecates signum aut Gurgonis personam,*' when it will preserve from poison, lightning, and defeat in battle (p. 169); chalcedony is to be engraved with

the figure of Mars or a draped woman holding a laurel branch; and for the beryl the sigil is prescribed that is given in the *Kyranides*. One authority is named in the text—*Sidostenes*—as well as a magician *Derineodon* and *Dapniceron* himself.

The later Alexandrian age did not neglect the intrinsic virtues of precious stones, apart from those of the sigils engraved upon them. The *Lithica*,¹ first attributed to Orpheus by Tzetzes and probably the work of the Asiatic Greek author of the Orphic *Argonautica*, records in the maze of its verse over twenty stones to which specific virtues are assigned. To galactites, serpentine and other snake-stones, and agate the usual virtues are ascribed; an agate shewing the image of a tree will bring a good harvest if tied to the arm of the ploughman or the horn of his ox; the stone found in the brain of a stag prevents baldness and gives concord between man and wife; jasper will bring rain; the sun's jewels, crystal and chrysolite, give kingly dignity; and the magnet is recommended, as it is by Damigeron and the majority of later lapidaries, as a test of chastity.

Another Alexandrian lapidary that ascribes great virtues to stones apart from those given by sigils is the work falsely ascribed to Hippocrates.² This repeats many of the virtues of the Orphic *Lithica*, and, like it, ascribes great virtues to coral: "φυλακτήριόν ἐστιν παντὸς κακοῦ, κινδύνου, πολέμου, θαλάττης, μαγιῶν. Σπλήνα τήκει, φάρμακα φυλάττει, καὶ σάρκας ἀναπληροῖ, καὶ πᾶσιν ἐστιν ἡγαπημένος ὁ βαστάζων αὐτόν." The turquoise is an amulet for seafarers; the topaz makes its wearer beloved, safe and "εὐμαθῇ καὶ ῥητορικώτατον ἐν λόγοις", and cures madness; the emerald, and still more the jacinth, give "πάσαν χάριν καὶ ἐπιτυχίαν, καὶ εἰ μὲν δοῦλος ὢν βαστάζων ἐλευθεροῦται, εἰ δ' ἄλλως, πολλῶν ἀγαθῶν κληρονόμος γενήσεται." The majority of the stones mentioned are to be worn as amulets, but in a few cases they are to be administered medicinally.

¹ ed. Abel, 1881.

² Bibl. Nat. MS. grec 2316; de Mély, *op. cit.*, ii, p. 185.

Several instances of stones giving protection to seafarers have been mentioned; there also exists a Greek Nautical Lapidary concerned exclusively with these.¹ It occurs in manuscripts after the works of which the prologue gives Astrampsychus as the author, and has therefore sometimes been attributed to him. Coral, it says, bound to the mast-head with the skin of a seal, will avert wind and tempests; carbuncle and chalcedony worn by a child will save him from shipwreck and drowning; and beryl, if Poseidon in a chariot is engraved upon it, will preserve seafarers unharmed by tumults.

The use of precious stones was continued by the physicians of the later Empire. Q. Serenus Sammonicus, the physician of Caracalla, wrote:

Coralium vero si collo nectere velles
Ne dubites illi virides miscere smaragdus;
Talia languenti conducent vincula collo
Lethalesque abigent (miranda potentia) morbos.²

Gems are not the only wonder-working substances employed in the making of jewels; the metals also are not without their supernatural properties. The Babylonians, attributing terrestrial events to sidereal influences, found a connexion between the planets and the metals that reflected their rays.³ Gold, they thought, corresponded with the sun, silver with the moon, lead with Saturn, iron with Mars, and tin with Jupiter.⁴ Such a tradition was current in Greece; it is given by Proclus in his commentary on the *Timaeus*,⁵ and with further elaboration by the Neoplatonist Olympiodorus; Pindar, on the slender foundation of *Isthmian Odes*

¹ Cardinal Pitra, *Spicilegium Solesmense*, iii, p. 393; de Mély, *op. cit.*, ii, p. 191.

² Quoted in Psellus, ed. Maussac and Bernard, p. 85, note 3.

³ The seven stages of the observatories of Borsippa and Nineveh and the seven precincts of Ecbatana were painted in the planetary colours. Bouché-Leclercq, *L'Astrologie grecque*, 1899, p. 313.

⁴ The most familiar of all these connexions, that of quicksilver with Mercury, was the work of the alchemists. See Hœufer, *Histoire de la Chimie*, i, p. 227 et seqq.

⁵ 14: 6; Berthelot, *Les Origines de l'Alchimie*, p. 48.

iv. 2, is given as its authority by Eustathius.¹ The scholiast on this passage of Pindar gives a full account of the correspondences between planets and metals: ἐκάστῳ τῶν ἀστέρων ὕλη τις ἀνάγεται, ἡλίῳ μὲν ὁ χρυσός, σελήνῃ δὲ ἄργυρος, Ἄρει σίδηρος, Κρόνῳ μόλυβδος, Διὶ ἤλεκτρος, Ἑρμῇ κασσίτερος, Ἀφροδίτῃ χαλκός. This doctrine found a place in the Mithraic symbolism; Origen² quotes Celsus as saying that in the course of initiation in the Mithraic mysteries the soul ascends a ladder of seven steps, of which the highest is of lead, the second of tin, the third of bronze, the fourth of iron, the fifth of tempered alloy, the sixth of silver, and the seventh of gold, corresponding to the planets Saturn, Venus, Jupiter, Mercury, Mars, the Moon, and the Sun.³ Given such a relation between the planets and the metals, they played their part in the astrological magic of antiquity as naturally as in the alchemy of the later Middle Ages. Even the sceptical Pliny records:⁴ 'Aurum pluribus modis pollet in remediis vulneratisque et infantibus adplicatur, ut minus noceant quae inferantur veneficia.'

So far we have considered the history in the ancient world of belief in gems and metals magical because of their substance or because of the figures or sigils engraved upon them. An analysis of the elements of magical jewellery must also comprise two other classes: magical designs and figures of which the power is irrespective of the material in which they are made, and magical inscriptions. Both of these classes depend more upon religion and superstition than upon science and astrology, and in consequence their history is less continuous, and their tradition one of ideas rather than of their manifesta-

¹ *Schol. Iliad*, 2.

² *Contra Celsum*, vi. 21.

³ Cumont, *Textes et Monuments relatifs au Culte de Mithra*, ii, p. 31. I owe these references to the kindness of Professor J. A. Stewart. That a similar belief was in the Middle Ages not confined to alchemists is proved by Chaucer's *Canon's Yeoman's Tale*:

Sol gold is, and Luna silver we threpe;
Mars iren, Mercurie silver we clepe:
Saturnus led, and Jupiter is tin,
And Venus copper, by my faderkin.

⁴ *Nat. Hist.* xxiii. 25.

tions. It is, therefore, unnecessary to consider the ancient examples in detail. That the first class was represented in the ancient world is clear from such Egyptian jewels as the necklace of Princess Sat-Hathor-Ant, found by Professor Petrie at Lahun,¹ on which are strung golden imitations of lion's claws; from the prophylactic character of certain elements of design in Greek jewellery;² and from such ornaments as the ancient flint arrow-heads set in Etruscan necklaces.³ It has been noticed that the majority of extant Roman camei are carved with the prophylactic head of Medusa;⁴ and according to Macrobius, the Roman *bullā* was the ornament of the victorious general at his triumph, 'having within it such remedies as they esteemed the most efficacious against the stroke of envy'. Christian medallion pendants of the late Empire were often prophylactic in intention,⁵ as is proved by their inscriptions. A gold medallion of the sixth century in the Von Gans Collection⁶ is inscribed on both sides KY(PIE) BOHΘI TE ΦΟΡΟΥCA: 'Lord, succour the wearer.'⁷ Another

¹ Exhibited at the *Conversazione* of the Royal Society, 16 June 1914. *Treasure of Lahun*, p. 11. Cf. de Morgan, *Fouilles à Dahchur*, Plate xvii.

² Many rings of the classical period are engraved with an eye to avert the Evil Eye. For an allusion to a prophylactic ring see Aristophanes, *Plutus*, l. 883:

οὐδὲν προτιμῶ σου. φορῶ γὰρ πριάμενος
τὸν δακτύλιον τοῦδ' παρ' Εὐδῆμου δραχμῆς.

³ Evans, *Ancient Stone Implements of Great Britain*, pp. 65, 366, where modern North African and Turkish cornelian beads of similar shape are recorded. For other modern examples see Bellucci, *Feticismo in Italia*.

⁴ Evans, *On a Military Decoration relating to the Roman Conquest of Britain*, in *Archaeologia*, xlix, 1885, p. 444. Many of the Jutish button brooches are ornamented with designs derived from the classical Medusa head. (Baldwin Brown, *Arts in Early England*, iii, p. 321.)

⁵ See de Rossi, *Bollettino d'Archeologia cristiana*, 1869, p. 33 et seqq.; Sorlin-Dorigny, *Revue des Études grecques*, iv, 1891, pp. 287-90.

⁶ Dennison, *A Gold Treasure of the late Roman Period*, in *University of Michigan Humanistic Studies*, vol. xii, part 2, p. 122, Plate xii.

⁷ For rings similarly inscribed see Dalton, *Catalogue of Finger Rings in the British Museum*, 1912, Nos. 59-64.

pendant, now in the Freer Collection,¹ is set with a medallion of Justinus II (565-78), and is inscribed +ΤΟΥ ΔΙ(α) ΦΥΛΑΞΑΙ CE EN ΠΑΣΑΙC ΤΑΙC ΟΔΟΙC COY: 'To keep thee in all thy ways,' part of Psalm xci, verse 11.

The attribution of mystical force to words and letters by the Gnostics led naturally to the development of magical inscriptions.² The number of the days of the year was embodied by Basilides in the second century B.C. in the formula ABRAXAS,³ which has given its name to a whole class of engraved gems. Other magical inscriptions are recommended in the *Kyranides*, and a large number are known to us from extant gems. The preparation of such Gnostic amulets is described in a Greek magical papyrus of the fourth or fifth century in the British Museum.⁴

λαβε λαμναν χρυσαν ἢ ἀργυραν χαραξον ἐπ' αὐτης
τους χαρακτηρας και τα ὀνοματα και τελεσας φορει καθαριως.

Many of the stones used by gem-engravers are recorded in the lapidaries as having magical properties, and occasionally there is no doubt of such virtue being attributed to the stone on which a Gnostic inscription appears.

Ancient flint implements have long been regarded as possessing marvellous properties. A celt of nephrite is recorded from Egypt of which both faces are engraved with such inscriptions in Greek,⁵ and others exist with Chaldean inscriptions⁶ and with Mithraic scenes.⁷ Verbal charms inscribed

¹ Dennison, *op. cit.*, p. 137, Plate xx.

² See King, 'Talismans and Amulets' (*Archaeological Journal*, xxvi, 1869, p. 25), and R. E. Raspe, *Catalogue raisonné d'une collection générale de pierres gravées moulées par T. Tassie*, 1791.

³ This has also been explained as a representation of the Supreme Being, with the symbols of the five emanations—Nous, Logos, Phronesis, Sophia, and Dynamis.

⁴ No. cxxiv, ll. 26-8: *Catalogue of Greek Papyri in the British Museum*, vol. I 1893, p. 122.

⁵ King, 'Talismans and Amulets' in *Archaeological Journal*, xxv, p. 103.

⁶ In the Borgia Collection; *Bollettino della Comm. Arch. Comunale di Roma*, 1870.

⁷ Evans, *Ancient Stone Implements of Great Britain*, pp. 60-1.

upon gold against gout are mentioned by Trallianus,¹ and the Abracadabra charm, used in England during the plague of 1665, and still in use in Central Europe, is recommended by Sammonicus:²

Inscribis cartae quod dicitur Abracadabra,
 Saepius et subter repetes, sed detrahe summam,
 Et magis atque magis desint elementa figuris
 Singula, quae semper rapies, et cetera figes,
 Donec in angustum redigatur littera conum:
 His lino nexis collum redimire memento.

British soil has yielded a Gnostic talisman in that found in 1827 a little to the south of the Roman fort of Segontium, near Carnarvon.³ This is a thin sheet of gold with twenty-four lines of inscription, chiefly in Greek, but including four and a half lines of symbols or *χαρακτήρες*. The inscription is intelligible only at the beginning and the end. First come the names Adonai, Eloï, Sabaoth, titles of the Jewish God, then *ἀρβαρτιαω*—the fourfold version of his Name IAO—followed by *ὦν ὦν ὦν ζῶν καλῶς*. After the lines of symbols comes the inscription *φύλαττε μὲ ἀλφιανον*, which gives the name of the first owner of the talisman. Gnosticism had compassed the known world, and from its centre at Alexandria had extended even to the confines of Wales.

¹ bk. xi.

² cap. li, l. 935 (Baehrens, *Poetae Latinae Minores*, iii, p. 150).

³ Now in the Carnarvon Public Library. See *Proc. Soc. Antiquaries Lond.*, 2nd Series, xxx, 1918, p. 184; Appeal issued by the Segontium Excavation Fund, 1920, Fig. 2; and *Proc. Soc. Antiquaries Lond.*, xxxi, 1919, p. 127.

II

THE EARLIER CHRISTIAN LAPIDARIES

THE Christian Church, opposed to magic in all its forms, condemned the engraved talisman, but carried on the tradition of the medicinal amulet. It is true Eusebius¹ expressed the opinion that the varieties of stones so greatly admired were useless and inefficient things: they possessed no other qualities than their natural ones, and hence no power to hold evil aloof. For what virtue could such things have either to cure disease or to avert death? Since, however, classical science had attributed medicinal virtues to gems, the traditions of the scientific lapidaries were carried on, though the cycle of astrological lapidaries only continued in the East. The Church's inheritance of classical mineralogy suffered little change; Pliny's descriptions might be used to describe the stones of Aaron's breastplate or of the heavenly Jerusalem, a moral and symbolical meaning might be added to his account, but the main content of the classical lapidaries was preserved intact by the conservatism of the Middle Ages.

One of the earliest of the Christian lapidaries is the fourth century *De duodecim lapidibus* of Epiphanius, Bishop of Salamis in Cyprus, which gained the approbation of St. Jerome.² This letter, addressed to his friend Diodorus Bishop of Tyre, treats of the twelve stones of the breastplate of the High Priest. In spite of the Christian nature of this arrangement, and of a certain amount of purely Christian symbolism, we find a few survivals of magical virtues attributed to gems.

¹ *De laudibus Constantini*. Migne, *Pat. Graec.* xx, col. 1337-40.

² ed. Conrad Gesner, Liguri, 1565; Foggini, Rome, 1743; de Mély, *op. cit.*, ii, p. 193. Mr. F. C. Conybeare tells me that this work was translated into Armenian at a fairly early date. The *Symbolic Key*, ascribed to Meliton, Bishop of Sardis, in the second century (de Mély, *op. cit.*, iii, p. xlix) has been shown to be of later date (*Bulletin critique*, 1885 p. 47; Harnack, *Gesch. der altchristl. Litteratur*, 1893, p. 254).

The medicinal virtues of agate for snake-bites and of sard for wounds, are recounted without apology; but the emerald's power of foreshadowing things to come, the green jasper's of driving away evil fantasies, and the virtue of the white jasper in affrighting phantoms and venomous beasts, are all given as the inventions of μυθοποιοί.

St. Isidore, Bishop of Seville, the encyclopaedist of the early seventh century, devotes the sixteenth book of his *Etymologiae* to the consideration of stones, and of this the fourth chapter is *de lapidibus insignioribus*. Pliny's *Historia Naturalis* is the source from which he takes the majority of his stones; but Dioscorides is quoted for amber, Thracian, Arabian, and Samian stones, haematite, schist, galactite, and several others. Augustine is the author from whom the accounts of asbestos, pyrites, and selenite are taken, and Solinus is authority for dionysias, mitridax, callaica, molochites, sagda, myrrhites, and other stones. Isidore follows Pliny and Dioscorides in classifying as precious stones many substances which later mineralogists have ousted from that category. His lapidary as a whole falls within the mineralogical or scientific class; he classifies gems by their colour: green, red, white, black, and fiery or golden. It is true that in many cases he ascribes virtues to them which at first sight appear to be magical; but these virtues are all of a medicinal nature, and though regarded with greater wonder in the sixth century than in the time of Dioscorides—witness Isidore's frequent interjection *quod mirum est*—are not such as to justify an accusation of μαγεία against Isidore. Dionysias, for instance,¹ prevents drunkenness, a property natural enough in a stone said to smell like wine when wet; memphitis,² powdered and drunk in vinegar, makes men insensible to torture; galactite,³ milky in colour and smelling of milk, will increase the supply of a woman's milk, and by a natural transference, will preserve the health of a child if hung round its neck.⁴ In few cases is any non-medicinal virtue attributed to a stone without

¹ cap. iv. 6.

² iv. 13.

³ x. 4.

⁴ See de Mély, 'Les Reliques du Lait de la Vierge et la Galactite,' in *Revue Archéologique*, Jan.-June 1890, p. 103.

qualification. Amiantos,¹ it is true, is said to resist all poisoning, especially by magicians, and sideritis to excite discord; but in all other cases the asseverations of the *magi* are quoted with an incredulity worthy of Pliny. Jasper is held by some to give aid and protection to its wearer: 'quod credere non fidei, sed superstitionis est.' The properties of the heliotrope are thus dismissed: 'Magorum impudentiae manifestissimum in hoc quoque exemplum est, quoniam admixta herba heliotropio quibusdam additis precationibus gerentem conspici negent.' The magicians state that coral resists thunderbolts, if it is to be believed; and say that with agate, improbable as it may seem, they can avert tempests and influence the flow of rivers. The only fable we encounter in the pages of his lapidary occurs in the account of draconites: 'Ex cerebro draconis eruitur. Quae nisi viventi abscisa fuerit, non ingemmescit; unde et eam magi dormientibus draconibus amputant. Audaces enim viri explorant draconum specus, spargunt ibi gramina medicata ad incitandum draconum soporem, atque ita somno sopitis capita desecant, et gemmas detrahunt. Sunt autem candore translucido. Usu earum orientis reges praecipue glorianitur.'

That it was not from ignorance, but from conscious selection, that Isidore laid little stress on purely magical properties, is proved by the fact that five paragraphs of his fifteenth chapter are devoted to the stones 'quibus gentiles in superstitionibus quibusdam utuntur'. Some of these, such as anancitis and synocitis, failed to achieve popularity; but liparea, chelonites, brontia, hyaenia, and pontica, appear in many of the lapidaries of the Middle Ages. From Isidore, also, come many of their descriptive phrases, such as that which declares that the true emerald transfuses the surrounding air with green.

From the time of Isidore of Seville till the eleventh century there appears to be a break in the chain of Western lapidaries. To the latter century, however, several such treatises can be ascribed. The scientific study of mineralogy was alien to the Byzantine tradition; the most famous reference to them

¹ iv. 18.

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in Byzantine literature occurs in the *Σωφροσύνη* of Melitiniotes,¹ where some eighty lines are devoted to a list of the precious stones adorning the bed of the virgin Temperance in Paradise. This, however, is mere literary decoration, with no attempt even at simple description. The two important Byzantine lapidaries are those of the elder and younger Michael Psellus. The earlier of these wrote a treatise on twenty-four stones² in the ninth century; the second Michael Psellus, tutor to the Emperor Michael Parapinaces and the most learned Greek of the eleventh century, wrote another short lapidary.³ His work carries on the Greek tradition in being, in fact, a medical treatise. Like other Eastern lapidaries, it pays particular attention to ophthalmia and other diseases of the eyes,⁴ headaches, and fevers.

In most cases, again following the traditions of Greek medicine, the stones are to be administered internally; but in a few instances, more relevant to the subject of magical jewellery, they are to be worn as amulets. Adamant, for instance, thus worn, will mitigate a semi-tertian fever; agate is so powerful an absorbent, that it will thus cure dropsy; beryl will cure diseases of the eyes, spasms, and convulsions; and galactite has not only the properties ascribed to it by Isidore, but is also said to induce forgetfulness of sorrow and to cure the wounds of animals. Lychnites worn about the neck cures rheumy eyes, and sapphire has the same property held against the forehead. Chryselectrum, worn about the neck, drives away fever, and chrysoprase strengthens the eyesight and mitigates internal pain. The whole lapidary is written from a practical point of view; Psellus, indeed, says that since many have dared to give the causes from which

¹ ed. E. Miller, 1858; de Mély, *op. cit.*, ii, p. 205.

² Ἀδάμας, αἰμαρίτης, ἀμέθυστος. . . τοπάξιον.

³ ed. Maussac, Toulouse, 1615; Maussac and Bernard, Lyons, 1745; Ideler, *Physici et Medici Graeci Minores*, Berlin, 1841, p. 244; de Mély, *op. cit.*, ii, p. 201.

⁴ See de Mély, 'Les Cachets d'Oculistes et les Lapidaires de l'Antiquité e du haut Moyen Age,' in *Revue de Philologie*, 1893, xvi, p. 81, on stones used for diseases of the eyes.

virtues are found in stones, including the ancient philosophers Anaxagoras, Empedocles and Democritus, and others, such as Alexander of Aphrodisias, who were nearly his contemporaries, he will content himself with ascribing to each stone its properties and virtues, and will leave matters too high for him to others. Those stones of the virtues of which he is ignorant—onocardium, olcades, spongites, leimoniates, lyncurium, triglites, triophthalmus, socondium, scringites, and schistus—he will therefore omit.

From the point of view of the influence it exerted on later writers, by far the most important of the early mediaeval lapidaries is that written in Latin hexameters by Marbode, Bishop of Rennes, between 1067 and 1081.¹ More than a hundred manuscripts of this work are known;² four verse

¹ See Migne, *Pat. Lat.*, vol. 171, col. 1725; Foerster and Koschwitz, *Altfranzösisches Übungsbuch*, 3rd ed., p. 175.

² See Pannier, *Les Lapidaires français*, p. 16; Mann, *Romanische Forschungen*, ii, 1886, p. 373. Other MSS. in England are:

Twelfth century:

Corpus Christi College, Cambridge, 466 ii. 3.

B. M. Add. 24199, ff. 56 v–82.

„ Cott. Tit. A. xxvii, ff. 176–81 v.

„ Cott. Tit. D. xxiv, ff. 19 v.–21 v.

„ Harley 80, ff. 99–101 v.

Bodleian Digby 13, 1–17.

„ Laud Lat. 86, ff. 26–45.

Durham Cathedral B. ii. 32, ff. 64–5.

Glasgow Hunterian MS. 244, ff. 105–11 v.

Early thirteenth century:

B. M. Add. 35180, f. 142 v.

Bodleian Lat. Misc. d. 15.

Balliol College 285 C. iii, ff. 321–8 v.

Corpus Christi College, Oxford, ccxxi, ff. 53 v–55.

Late thirteenth century:

Cambridge University Library, Kk. iv. 28, ff. 106–12 v.

Caius College, 109, ii. 6, ff. 134 v.–138.

Fourteenth century:

Trinity College, Cambridge, 969, ff. 198 v.–200 v.

B. M. Arundel 295, ff. 260–5.

„ Sloane 346, ff. 1–35. (With Brakendale's commentary.)

„ Sloane 1784, ff. 13–22 v.

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translations exist of it in French,¹ and it was also translated into Provençal,² Italian,³ Irish,⁴ Danish,⁵ Hebrew,⁶ and Spanish.⁷

Some doubt has been cast on its attribution to Marbode. Dom Rivet has ascribed it to an anonymous author of the fifth century abbreviating from a Greek original.⁸ In many manuscripts it is given anonymously; in some, as for instance one at Tours⁹ and another at Montpellier,¹⁰ it is ascribed to Hildebert. None the less, the general consensus of opinion points to Marbode as its author. The occasional gallicisms, the frequent play upon words, all indicate eleventh-century France as its place of origin; and an important twelfth-century manuscript in the Bibliothèque Nationale¹¹ confirms the attri-

Bodleian Digby 28, ff. 169-80.

„ Digby 193, ff. 28-30.

Exeter College 35. xix, ff. 236-9.

Gresham College, Norfolk MS. 285.

Winchester Cathedral 116.

Fifteenth century:

B. M. Sloane 2481, ff. 153-7 v.

„ Sloane 213, ff. 32 v-36.

„ Sloane 3444, ff. 12-15.

Bodleian Digby 129, ff. 53-71.

Merton College 324, ff. 220 v-229 v.

Corpus Christi College, Oxford, ccxxvi, ff. 2-24 v.

Cambridge University Library, Dd. xii. 51, ff. 67-80.

„ „ „ Dd. x. 52 (described as *Liber Magistri Gaufredi Phisici de lapidibus*).

Trinity College, Cambridge, 1422, ff. 108 v-113 v.

¹ Pannier, *op. cit.*, pp. 20-188; see p. 54.

² *Jahrbuch für rom. Literatur*, Series i, iv, 1862, p. 78.

³ Bandini, *Cat. MS. Cod. Bibl. Med. Laur.*, v, col. 283.

⁴ B. M. Arundel 333, fol. 124 b.

⁵ Henrik Harpestrenes *Danske Lægenbog*, Copenhagen, 1826, pp. 133-53.

⁶ MS. Berne 200, Steinschneider, 'Lapidarien,' in *Semitic Studies in Memory of Rev. A. Kohut*, p. 69; and MS. Leyden, *The Book of Riches*, trans. Jacob ben Reuben, Steinschneider, *History of Jewish Literature*, pp. 201 and 369.

⁷ B. M. Add. 21245, fol. 85, fifteenth century.

⁸ *Hist. littéraire*, ii, p. 335.

⁹ MS. 1040.

¹⁰ MS. 121.

¹¹ Lat. 14470.

bution to Marbode usually made by scribes of a later date.¹ The lapidary of Marbode, in the majority of manuscripts, contains descriptions of some sixty stones; the additional chapters are probably spurious.² The lapidary in every case starts with a prologue beginning:

Evax rex Arabum legitur scripsisse Neroni,
Qui post Augustum regnavit in urbe secundus,
Quot species lapidum, quae nomina, quive colores,
Quae sit his regio, vel quanta potentia cuique . . .

This clearly shows that the foundation of the work is the lapidary of Damigeron³ and the description of the stones confirms this derivation. The first section is *De Adamante*,⁴ of which there are four kinds.

Ad magicas artes idem lapis aptus habetur,
Indomitumque facit mira virtute gerentem;
Et noctis lemures, et somnia vana repellit.
Atra venena fugat, rixas et iurgia mutat.
Insanos curat, durosque reverberat hostes.
Clausus in argento lapis hic, aurove feratur,
Cingat et hinc laevum fulgens armilla lacertum.

To the majority of the stones in Marbode's poem—the lapidary *par excellence* of the Middle Ages—are ascribed such magical virtues. The Cretan agate is an antidote to poison, the Indian variety strengthens the eyesight; and every species is prophylactic, bestowing on the wearer ability, grace, persuasive power, and a fine complexion. To green jasper are attributed its usual virtues as an amulet against fevers and dropsy; and 'consecratus gratum facit atque potentem'. Chalcedony brings victory; chrysolite, if worn hung on the bristle of an ass, drives away demons and evil phantoms; topaz has healing powers; amethyst prevents drunkenness; cornelian restrains anger; and selenite is strengthening and brings about reconciliation between lovers. The familiar magical stones, not possessing the beauty of gems, but endowed with marvellous virtues, reappear: heliotropium, ceraunius, gagatromaeus, cheli-

¹ See Pannier, *Les Lapidaires français*, pp. 19-20.

² Some are printed in Migne, 171, col. 1688-90.

³ See p. 21.

⁴ Migne, *Pat. Lat.* clxxi, col. 1739.

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donius, alectorias, and aetites. Even less popular stones—haematitis, hephaestitis, and hieracitis—are included. The stones of the breastplate of Aaron and of the Apocalypse are not specially distinguished, and are given no symbolic significance; jacinth averts sadness and is a prophylactic against disease, assuring a favourable response to any petition; sapphire preserves the limbs from injury, and the wearer from fraud, conquers envy, averts terror, liberates from prison, purifies the eyes, cools the body, and makes its wearer beloved by God and man. The Arimaspi are described as the guardians of the emerald; Isidore's phrase as to its power of transfusing the surrounding air with green is repeated; it is said to help men to recover that which they have lost, and to aid them in divination. It makes its wearer eloquent and persuasive; it is a cure for epilepsy and semi-tertian fever, it rests the eyes and averts tempests. There is a total absence of the Christian symbolism which the Church in the centuries before and after Marbode delighted to elaborate upon the foundation of the emerald. Of one of the 'sacred' stones, the chryso-prase, Marbode writes:

Quas habeat vires potui cognoscere nondum,
Sed tamen esse reor, nec fas est omnia nosse.

For the magical virtues of such a stone as the magnet, however, Marbode can give a complete *précis* of the writings of classical authors on the subject: it is useful to magicians, is a test of adultery, it aids thieves in their misdoings, and has several other properties. Neither the Bible nor the Fathers are ever quoted; the only authors mentioned in the text are pagan: coral, Marbode writes,

Ipsius est, ut ait Zoroastes, mira potestas,
Et sicut scribit Metrodorus optimus auctor,
Fulmina, typhonas, tempestatesque repellit,
A rate vel tecto, vel agro, quocunque feratur.

It may at first seem strange that so pagan a poem should be the work of a bishop, but its subject-matter is due to Damigeron and other classical authors and Marbode may have written it rather as an exercise in elegant versification

than as a serious treatise. Perhaps in his old age he would have wished to repudiate it, placing it among those works :

Quae iuvenis scripsi, senior dum plura retracto,
Poenitet, et quaedam vel scripta vel edita nollem.

It was suggested by Beckmann in 1799¹ that another poem, found in the manuscript of the Bibliothèque Nationale² at the end of the more famous lapidary in hexameters, differing from the former as much in inspiration as in metre, may have been written in expiation of the pagan character of his earlier work. This purely symbolical lapidary begins :

Cives coelestis patriae
Regi regum concinite.
Qui supremus est opifex
Civitatis Uranicae,
In cuius aedificio
Consistit haec fundatio.
Iaspis colore viridi
Praefert virorem fidei
Quae in perfectis omnibus
Nunquam marcescit penitus,
Cuius forti praesidio
Resistitur diabolo

¹ *Marbodi Liber lapidum seu de gemmis*, Göttingen, p. 136.

² Lat. 14470; also in Brussels MS. 2834; Lincoln Cathedral MS. 199, fol. 170 v.-172, &c.; Migne, *Pat. Lat.*, vol. 171, col. 1771. This attribution is rejected by Garrett, *Precious Stones in OE. Literature*, p. 27. B.M. Reg. 8. G. VI (fifteenth century) ascribes it to Bede; C. Engelhardt printed it in his edition of the works of the Abbess Herrad von Landsperg, but this attribution is improbable.

III

LAPIDARIES OF SPAIN AND THE NEARER EAST

THE lapidaries of the ancient world have been shown to fall into two classes, the scientific or medical, and the magical, which usually shews astrological influence. The evidence has been further found to prove that the lapidaries of the Christian countries up to the end of the twelfth century fall for the most part into the first of these categories, and, even when tainted with magic, are free from astrological influence. The ancient science of astrology had not, however, been lost, but had passed into the keeping of the East. Hence, in the important Arabic lapidaries, and in the Spanish lapidaries translated from Arabic or written under Arabic influence, we find once more the double influence of medicine and astrology.

We are now so familiar with the idea of the preservation and transmittance of Aristotelian science by the Arabs, that this would seem the point at which to consider the possibility of their having been acquainted with any mineralogical treatise of his. The basis of the theory that a lapidary by him existed and was known in the Middle Ages is the fact that Ibnu 'l Baiṭar, the compiler of the *Lapidary of Alfonso X*, and other Arabic writers, Joffroy of Waterford (the thirteenth-century translator of Aristotle), Albertus Magnus, and Vincent de Beauvais all speak of such a lapidary. The compiler of the *Lapidary of Alfonso X* even describes it: 'un libro en que nombró sietecientas de ellas, dijo de cada una de que color era, et de que grandeza, et que virtud habie, et en que logar la fallaban.'

Further mention is made of such a work in the prologues of several thirteenth-century manuscripts devoted to the subject of precious stones, and indeed one such manuscript,

the Lapidary of Liège,¹ purports to give its text. This last claim, however, has been sufficiently disproved by the discovery that the lapidary in question is a translation of the Arabic *Book of Stones* of Luca ben Serapion,² known from a manuscript in the Bibliothèque Nationale.³ The tradition of such an Aristotelian lapidary may in part have arisen from a misunderstanding of an abbreviated version of the name of Muḥammad ar Rāzī, whose work is quoted in the *Lapidary of Alfonso X*; but it has been noted⁴ that the quotations ascribed by Vincent de Beauvais to the fourth book of the *Liber meteororum* of Aristotle are given with glosses at the end of a manuscript of that work in the Bibliothèque Nationale,⁵ and that a few traces of a lost Aristotelian treatise, *de mineralibus*, may be found in an Arabic work. With the exception of a ninth-century Arabic treatise translated from an earlier Syriac text, and ascribed to Aristotle, though in no way Aristotelian in its content, no Arabic manuscript, so far as I am aware, pretends to represent it.

The series of Arabic lapidaries begins in the eighth century with the *Book of Stones* of Jābir ben Hayyān.⁶ On the scientific side, the most important Arabic lapidaries are that of Muḥammad ibn Mansur, who wrote in the twelfth century a systematic treatise, dedicated to the Abbaside Sultan of Persia, describing the properties, varieties, and sources of gems, which he classified by gravity and hardness,⁷ and the book of Ibnu 'l Baiṭar.⁸ This, perhaps, should hardly be called a lapidary; his descriptions of precious stones are scattered through his alphabetically-arranged *Treatise on Simples*,

¹ ed. V. Rose, *Zeitschrift für deutsches Alterthum*, 1875, vi, p. 321.

² Lūqa bin Sarābizūn.

³ *Revue des Études grecques*, vii, 1894, Supplément, 876.

⁴ de Mély, *op. cit.*, iii, p. xxxiv.

⁵ Latin 16142.

⁶ For a bibliography see Steinschneider, 'Lapidarien,' in *Semitic Studies in Memory of the Rev. A. Kohut*, p. 48.

⁷ C. W. King, *Natural History of Precious Stones*, p. 8. For other Persian treatises on precious stones see E. G. Browne, 'Persian Manuscripts of the late Sir Albert Houtum Schindler, K.C.I.E.,' in *Journal of Royal Asiatic Society*, October 1917, p. 688.

⁸ *Notices et Extraits des MSS. de la Bibliothèque Nationale*, vol. xxiii, 1877.

which includes plants, minerals, and the animal products that found a place in the Arab pharmacopoeia. Primarily, indeed, Ibnu 'l Baiṭar was a botanist and herbalist, and it was to examine the flora of the Mediterranean lands and the East that he left Seville about 1219.

Ibnu 'l Baiṭar's treatment of his material is strictly scientific. He first gives quotations from the authors, classical or Arab, who treat of the plant or substance in question, and then draws his own conclusions from these documents and from his own experience. Tradition, experiment, and research each play their due part in his work. His descriptions of aetites,¹ an Indian stone, Hajarū 'l Kazak,² and alectorias,³ are taken from Arab sources—the book called *El Minhaj*, Razes (Muḥammad ar Rāzī), Al Ghāfaqī, and At Tamīmī—but in the majority of cases he takes his medicinal and medico-magical virtues from Greek sources. Crystal⁴ preserves its wearer from the terrors of the night; jasper is recommended as an amulet;⁵ jet will drive away venomous beasts.⁶ Many other stones, besides possessing medicinal properties when taken internally, are also efficacious used as amulets. Paul of Aegina is quoted as authority for the fact that Thracian stone drives away wild animals, and should be worn by epileptic subjects;⁷ Galen has said that selenite is an amulet for women,⁸ and that it also helps a tree to fructify; Dioscorides recommends ophites or jasper as an amulet against snake-bites and headaches, while Galen advises its use for lethargy and epilepsy.⁹ Ibnu 'l Baiṭar himself has been assured by a trustworthy person that it is efficacious against snake-bites if worn as an amulet. Amethyst preserves from gout and bad dreams,¹⁰ while coral, according to Avicenna, fortifies the heart, according to Masīh ad Dimashqī cures haemorrhage, and according to Paul of Aegina prevents dysentery, while Ibn Māsah recommends it for the eyes, and Muḥammad ar Rāzī

¹ *Not. des MSS.* xxiii, p. 121.

³ xxiii, p. 415.

⁵ xxvi, p. 427.

⁷ xxiii, p. 410.

⁹ xxx, p. 412.

² xxiii, p. 414.

⁴ xxiii, p. 413.

⁶ xxiii, p. 411.

⁸ xxiii, p. 407.

¹⁰ xxiii, p. 307.

as a curative amulet for gout and epilepsy.¹ Onyx used as a seal brings sorrow, bad dreams, and quarrels,² but a cornelian seal gives courage in battle.³ Emeralds, again, are worn by royal children from their birth, since, set in pendants or rings, they prevent epileptic seizures.⁴

It is interesting to notice that among his medicinal substances Ibnu 'l Baiṭar includes gold, which, if worn by a child, will preserve it from fear, a fact which he knows from experience.⁵ He also gives a full description of the use against poison of the bezoar stone, a medicament much used in Europe in the sixteenth century. He recommends the same procedure as that then employed: that the substance should be set in a pendant or a ring, and put in the patient's mouth or pressed upon the wound. It is in treating of this stone that Ibnu 'l Baiṭar comes nearest to magic, for he quotes the statement of Ahmad ibn Yūsuf that upon the setting of the bezoar the figure of a scorpion should be engraved when the moon is in that sign.

Another important Arabic lapidary of the thirteenth century is that of Tifashī.⁶ This is a mineralogical treatise in twenty-four chapters, considering first the generation of each stone, according to Aristotle and 'Belinas' or Pliny, secondly their different varieties and values, then their qualities, and then the defects to which they are liable. A manuscript in the Bibliothèque Nationale⁷ contains this treatise, that of Hunain ibn Ishāq the Wise on the magical and talismanic use of gems, a similar work by 'Utarid ibn Muḥammad al Kātib, and a fourth attributed to Avicenna.

If Ibnu 'l Baiṭar's work may be taken to represent the scientific Arabic lapidary, that known by the name of Alfonso X may be considered the best type of the magical and astrological treatise on precious stones.⁸ The court of Alfonso the

¹ xxiii, p. 223.

² xxiii, p. 354.

³ xxv, p. 458. Two traditions (*hadīth*) of Muḥammad attach blessing to the use of cornelian for seals.

⁴ xxv, p. 216.

⁵ xxv, p. 151.

⁶ *Journal Asiatique*, Jan. 1868, Series 6, vol. xi, p. 1.

⁷ Supp. Ar. 878.

⁸ Published in facsimile by Blasco, 1881. See Rodríguez de Castro,

Learned of Castile (1223-84) was as typical a court of the Arab renaissance of the thirteenth century as was that of Lorenzo de' Medici of the fifteenth-century renaissance of classical learning. Jews, Mohammedans, and Christians there met on equal terms; his court was the Academy where an epitome of the science of the Mediterranean world of the thirteenth century could best be produced.

The only recorded manuscript of this important work is a codex given to the Escorial Library by Philip II from the library of Don Diego de Mendoza. The manuscript can be little later than the reign of Alfonso X; the illuminated initials and vignettes that adorn it are of great interest.

The prologue states that the lapidary was begun in the twenty-fifth year of the reign of 'el mucho alto et onrrado don ALFONSO amador de Ciencias et de saberes Por la gracia de dios REY de Castiella', and was finished two years later, in 1278. There follows the argument which runs through the whole book:

'Aristotil que fué mas complido de los otros filosofos et el que mas naturalmiente mostró todas las cosas por razon verdadera, et las fizo entender complidamente segund son, dijo: que todas las cosas que son so los cielos se mueven et se enderezan por el movimiento de los cuerpos celestiales, por la virtud que han de ellos segund lo ordenó Dios, que es la primera virtud et donde la han todas las otras.'

The book is not written for the ignorant:

'Este libro es muy noble et muypreciado; et que dél se quisiere aprovechar, conviene que pare mientes en tres cosas. La primera que sea sabidor de astronomia, porque sepa con-noscer las estrellas, en cual estado están, et en cual sazon viene mayor virtud á las piedras dellas, segund la virtud que reciben de Dios. La segunda cosa es que sepan con-noscer las piedras et las colores et las facciones dellas, et otrosi que sepan ciertamente los logares sennalados ó se crian, et ó se fallan et estre-mar la contra fecha de la natural, et departir otrosi las que naturalmiente se semeyan en uno; con-noscien-

Biblioteca Española, i. 104; Amador de los Rios, *Estudios sobre los Judios de España*, ii, cap. iv; *Historia crítica de la literatura española*, pt. ii, cap. 12, vol. iii.

dolas por peso, et por dureza, et por las otras sennales por que se pueden connoscer á hombre que fuere entendudo en este saber. La tercera cosa es que sea sabidor de la arte de fisica, que yace mucho de ella encerrada en la virtud de las piedras, segund en este libro se muestra; et que sepa de ellas obrar asi como en él manda: et que sea de bon seso porque se sepa ayudar de las cosas que facen pro, et se guarde de las que tienen danno. Et obrando de esta guisa, llegará á lo que quisiere facer por ellas et verá cosas maravillosas de la su virtud que recibe de Dios; por que habrá á loar et bendecir el su nombre que sea benido por siempre yamá. Ament.'

The index to the Escorial Codex states that the first part of the lapidary is by Abolays,¹ who treats of sigils and of their effects on stones according to the degrees of the twelve signs of the Zodiac; this part contains three hundred and sixty chapters. Abolays, the prologue tells us, though 'El tiene la ley de los moros', was a man who loved the Gentiles, and particularly those of Chaldea, for his ancestors had come thence. Therefore he translated this lapidary from Chaldean into Arabic, and Garci Perez translated it from Arabic into Castilian.

The second part of the *Lapidary of Alfonso X* is by Timtin, who treats of other sigils made according to the degrees of the signs in stones in conjunction with metals. This also has three hundred and sixty chapters.

The third part is by Pythagoras, who speaks of other kinds of sigils which fall into the same degrees as those which affect men at their birth. This also has three hundred and sixty chapters.

The fourth part is by Ylus, who writes concerning the sigils made in stones according to the faces of the signs. This has thirty-six chapters.

The fifth is by Belyenus² and Ylus, and treats of many sorts of sigils that are made in stones for the planets when they are in their dignity and hour.

¹ Abu Laith.

² B. M. Royal 12 C. XVIII, fol. 12, gives a treatise 'Belenus de Imaginibus' in a fourteenth-century French script. The catalogue states that Belenus is here apparently equivalent to Jirgis ibnu 'l'Amīd.

The sixth is by Pliny and Delyenus and other wise men, and treats of the sigils made in stones 'faziendo dellas fortunas'.

The seventh is by Utarit,¹ and treats of the seven sigils made for the seven planets, in the seven stones appointed; this has seven chapters.

The eighth is by Ragiel, who writes of twenty-four sigils - which should be made in the appointed stones.

The ninth is by Yacoth,² who treats of the waters and earths included in the mineralogy of precious stones. This has nine chapters.

The tenth is by Ayi,³ who tells how stones should be engraved and gives other rules for this science.

The eleventh again treats of sigils.

This bare list of the contents of the *Lapidary of Alfonso X* justifies the already quoted assertion of the compiler that he who is to understand and profit by it must be learned in astronomy, mineralogy and medicine, and of good intelligence.

The Escorial Codex is said by its editor to contain only the first part of the lapidary, that attributed to Abolays. But the codex contains four parts, and it is the first of these which, with its three hundred and sixty stones arranged according to the degrees of the Zodiac, is clearly to be identified with that of Abolays.

The second treats of the virtues of stones according to the passage of the sun through the faces of the signs, and the symbols of the stars in those faces. This has thirty-six chapters, and it would seem extremely probable that it represents the fourth part of the lapidary on this subject mentioned in the index and attributed to Ylus.

The third section of the codex is devoted to the change effected in the virtues of stones according to the position of the planets and of their sigils. This attributes four stones to Saturn, four to Jupiter, four to Mars, eight to the Sun, thirty-seven to Venus (including twelve repeated mentions of stones), eleven to Mercury (including four mentions of emerald), and five to the Moon, including a double mention of bezoar stone.

¹ 'Utarid.

² Yāqūt.

³ 'Alī.

This gives sixty-four sections, which does not coincide with the length of any of the sections enumerated in the index. But the scribe has omitted to fill in the number of sections occupied by the treatise by Belyenus and Ylus 'que fabla de muchas maneras de ymagenes que se fazen en las piedras por las planetas quando son en sus dignidades et en sus horas', and it seems very likely that the two are identical.

The fourth part of the Escorial Codex treats of the virtues of stones according to the constellations under which they are formed, and of the shape and colour they receive at their formation, and also shows how these are affected by the virtue of the planets which engender and create them. It is ascribed to Muḥammad Abenquich, and is a separate treatise, having no direct connexion with the *Lapidary of Alfonso X*.

Even though the lapidary is not known in its entirety, the study of the three parts preserved in the Escorial Codex gives some idea of the completeness and complexity of the connexion made by Arabic science between the celestial forces and minerals. The treatise of Abolays divides the stones first by the signs of the Zodiac. Those under Aries, Leo, and Sagittarius are all hot and dry; those under Taurus, Virgo, and Capricorn cold and dry; under Gemini, Libra, and Aquarius hot and humid; under Cancer, Scorpio, and Pisces cold and humid, according to the ancient theory of the triplicities of the four principles, or more usually of the four elements.

The stones are further divided, one being allotted to each of the thirty faces of each of the signs. Each is first described, and then recommended as potion, ointment, or amulet against some disease or misfortune. Finally, a star is mentioned as having power over the stone, endowing it with its power and virtue, which is therefore stronger when that star is in the ascendant.

Naturally among the three hundred and sixty 'stones' of this section of the lapidary many other mineral substances are included, such as talc, orpiment, soda, sulphur, &c.; metals such as gold, silver, iron, and lead; and substances such as sponges. The sources are indicated by the Greek derivation

of some of the names, and by the fact that the name of a single stone is often given in Arabic, 'Chaldean', and Spanish. The extraordinary distortion of some of the Greek terms¹ has led to the confusion of different forms of the same word, which are given separately and ascribed different qualities.

In many cases the name, description, or virtues of the stones are taken direct from the Greek authorities. Thus the magnet is said to give strength and courage; amber to have drying and absorbent properties; pearls to strengthen the heart; jasper to help internal diseases, to comfort the spirit, to avert epilepsy, to confer quickness of thought and action, and to cure headache. The diamond is attributed its mediaeval quality of deadliness if swallowed, and is said to confer courage. Coral, as usual, appears as a styptic and stimulant, and emerald is efficacious against venom and possession by evil spirits.

Characteristic of the astrological lapidary are the stones which appear in the sea when each planet rises and sets; that of Venus drives away serpents, that of Mercury has the same property, and increases bodily strength. The bezoar takes the important place always accorded to it in an Eastern lapidary. 'Piedra muy preciada et muy noble', it avails against all forms of poison, of earth or of beast, by biting or by wounds, eaten or drunk. The anaesthetic stone is also mentioned, the 'piedra del Suenno'. Los fisicos et los cirurgianos usan della en los que quieren fendér o tayar, por que non sientan la dolor.' All the properties attributed to stones, however, are not medicinal; the Coloquia stone is much prized by philosophers, since it has such virtue that he who wears it increases in wit and understanding, so that he never finds it hard to learn or comprehend anything. Further, not all stones are beneficent in their action; dark Aliaza is full of 'malas vertudes'; those who wear it will be implicated in many quarrels, and those who drink from cups made of it will become melancholy. As to gold, 'Que vos diremos? Las noblezas et las vertudes del oro son tantas que serien

¹ See *Revue de Philologie*, 1893, pp. 77 and 120.

luenga cosa de decir; pero algunas y ha manifestas, asi como esta: que cuando ven los hombres el oro dales gran alegria en so corazon, et tienense con él por mas ricos que con otra cosa que pueden haber.'

The lapidary of Abolays, then, though astrological in form, is for the most part scientific in character. We find in it no mention of the magical powers of the astrological sigils over stones, though the stones are considered to be affected by the position in the heavens of the planets which rule them.

The second part of the Escorial Codex, which I am inclined to identify with the fourth part of the *Lapidary of Alfonso X*, treats of the 'virtue of stones according to the passage of the sun through the faces of the signs and of the symbols of the stars which are in them; and also of the times in which they have these virtues most perfectly and of those in which they change according to the variation and diversity of the symbols of the stars in the faces of the signs, whose power comes from God. And since when the sun passes through the faces of the signs, or through the houses of the other planets, the stones receive virtue from the rays of the constellations in the face of that sign, it follows that as the relations between these bodies change, so change all things, whether they live or have no soul, that receive virtue from them.'

This lapidary is, therefore, differently planned and considers the properties of stones from a different angle from that of Abolays. First, the faces of each sign of the Zodiac are considered, and not their thirty degrees; then the stone allotted to each face is named, its properties enumerated, and the state of the heavens in which these properties are most powerful is described. Finally, the symbol which completes the effect of these celestial influences upon the stone is given. For instance, the topaz is thus described:

'De la segunda faz del signo de Escorpion es la piedra que há nombre Stopaza. Et de esta es dicho en este libro en el xv grado del signo de Leon. Et su virtud es á tal que si la pusieren en algun lugar dó haya alacranes ó culuebras ó otras reptilias pozonadas ayuntars hán todas á ella. Pero esto es

mas manifestamente seyendo Yupiter en esta faz, et en su ascendent, et en su hora et recebudo de la luna. Et que descenda sobre esta piedra la virtud de hombre caballero sobre un caballo et que tenga en la mano diestra un alacran.'

The Eastern and magical character of this lapidary is very noticeable. The properties ascribed to the stones are in no case medicinal; they make the wearer beloved by men or women, young or old, kings or judges; they preserve him from wild beasts and the perils of the sea; they make him intelligent and learned, or brave and victorious; but they are never concerned with his bodily ills. Further, the names of the stones always appear in their Eastern form; there is absolutely no trace of the influence of Greek medicine and mineralogy.

The study of sigils as they appear in lapidaries of engraved gems is fraught with difficulty and uncertainty. The Babylonians, dividing the heavens by the Zodiac, further divided the space covered by each sign into three equal parts, and each of these into ten degrees. The influence of each face, and of each degree, was typified by a figure, group of figures, or other symbol, which in course of time took to itself the name of ἀποτέλεσμα, and so of talisman.¹ It has been suggested that it is from these symbols that the original series of sigils for stones was derived, but it is certain that the mediaeval European lapidaries of engraved stones cannot, for the most part, be directly connected with them, but appear rather to be derived from the signs of the constellations.

In the second lapidary of the Escorial Codex, the relation between the sigil and the astrological figure that it represents is established; but this astrological figure is not the degree of the sign, but that of one of its three faces, and for the symbols of these I have been unable to find a satisfactory authority. The sigils recorded, however, are similar in character to those of the degrees of the signs, and it would seem very probable that they represent or are derived from the symbols of the faces of the signs. It is equally clear that

¹ See King, 'Talismans and Amulets,' *Archaeological Journal*, 1869, xxvi, p. 25.

the virtues ascribed to the stones are derived from the character of the sigils. In many instances those that include figures of armed men confer courage and victory in battle, those with female figures bring success in love, those with figures of monsters create discord and strife, and those which shew a man holding or standing upon a serpent or animal preserve their wearer from fierce and venomous beasts. Though in some cases the connexion between the sigil and the property ascribed to the stone is not so clear, this lapidary is, on the whole, the best extant example of the lapidary of engraved stones symbolically derived from the science of astrology.

The third section of the Escorial Codex, which I suggest might be that ascribed to Belyenus and Ylus in the index, also treats of sigils and of the way in which the virtues of stones are changed according to the position of the planets and of the place of the constellations whence they receive their virtue. The planets are taken in order of importance, beginning with Saturn and ending with the Moon. This lapidary is less symmetrical in form: several stones occur more than once, and the numbers allotted to each planet are unequal; but the total number of sections is the square number, sixty-four. The name of the stone and that of its ruling planet is given, the positions of the planet favourable to its properties and a description of these follows, and then the paragraph ends with a description of the appropriate sigil, occasionally explained as symbolizing such and such a star from which the stone receives its virtue. These sigils are varied and puzzling; some recall the figures of the degrees, some are familiar in other European lapidaries of engraved stones, and some are not figures but inscriptions. The first paragraph of the lapidary will suffice to show the type:

‘Saturno há poder sobre la piedra que há nombre Ademuz¹ en griego, et Almez² en arábigo, et en nuestro language Diamant. Et de esta es ya dicho en el primero grado de Tauro [in the lapidary of Abolays]. Et si quando Saturno es bien recebudo de la luna et en su ascendent, et en su hora,

¹ Adamas.

² Almáz.

tomare alguno esta piedra et la toviere consigo descendiendo sobre ella la virtud de las estrellas en que estan figuradas ocho letras mayores del abece de Saturno que fallaron los hommes primeramente que otras letras que leer se pudiesen, et entrare en algun lugar do haya hommes que se quieran bien, querers hán luego mal en quanto la piedra y shobiere.'

This, like the preceding lapidary, is concerned with magical properties only, but its sigils and its content are quite independent of the other.

The fourth section of the Escorial Codex, as has been said, has no connexion with the *Lapidary of Alfonso X*, and is the work of Muḥammad Abenquich,¹ treating of the properties, colours, and shapes of stones according to the constellation by which they are engendered. It is remarkable as quoting Plato as an authority on the classification of gems, and on the connexion existing between their colours and the planets that govern them. It also quotes Alexander, 'Beostriates', and the writers Yacob Alquindi,² 'Linemuz Alintaqur', 'Zabor', and Muḥammad ar Rāzī.

Other Spanish-Arab lapidaries might be quoted—a treatise by Toç on the ten stones of Venus is preserved in a manuscript in the Bodleian³—but enough have been examined to show the importance of the Arab heritage of Greek medicine, eventually, as far as lapidaries are concerned, overshadowed by an elaborate system of magical belief based upon the characteristically Eastern science of astrology.

¹ Probably Abu 'l Kish.

² Ya'qūb al Kindi.

³ Bodl. 463, fol. 78, fourteenth century. Toç may possibly represent Tusī.

IV

WESTERN MEDIAEVAL LAPIDARIES

A

The Rise of Modern Literature: Mediaeval Popular Lapidaries.

THE dawn of vernacular literature in the West shows us the tradition of the classical lapidary still surviving. But it survives in a form derived from the sources least contaminated by superstition; the Old English scientific treatises of the eleventh century draw their knowledge almost exclusively from Pliny, Solinus, and Isidore, and consequently include little that is magical in character.¹ A manuscript of the first half of the eleventh century in the British Museum² includes a late West-Saxon lapidary that may be considered the first treatise of the kind in any of the modern languages of the West. Its first part describes the twelve stones of the Apocalypse—one is accidentally omitted—and the second describes ten other stones, of which the order shews the influence of Isidore and the description that of the great glossaries. The influence, direct or indirect, of Solinus and consequently of Pliny is evident throughout the work; the only stone to which marvellous properties are attributed is the *mocritum*, which is said to prevent armies coming into conflict if it lies between them, and to be good against witchcraft.

In two passages of the *Læceboc* magical and medicinal properties are ascribed to stones:

To þon ilcan (heafod-ece) sêc lytle stanas on swealwan bridda magan, 7 heald þæt hie ne hrinan eorþan, ne wætre, ne oþrum stanum, beseowa hira iiii on þon þe þu wille, do on

¹ See Garrett, *Precious Stones in Old English Literature*. Dissertation zur Erlangung der philosophischen Doctorwürde . . . der . . . Universität München, 1909.

² Cott. Tib. A. iii; Garrett, *op. cit.*, p. 31.

þone mon þe him þearf sie, him biþ sona sel; hi beoþ gode wiþ heafodece 7 wiþ eagwærce 7 wiþ costunga 7 niht gengan 7 lenctenadle 7 maran 7 wyrtforbore 7 malscra 7 yflum gealdor-cræftum; hit sculon beon micle briddas þe þu hie scealt on findan.

As a cure for this (headache) seek little stones in the maw of the young of the swallow, and take care that they do not touch earth, nor water, nor other stones; sew three of them up into what thou wilt, put them on to the man who has need of them, he shall soon be better. They are good against headache, pain in the eyes, temptations, goblins, tertian fevers, incubus, herb-magic, witchcraft, and evil sorceries. The young birds in which you find them should be big ones.¹

The chelidonium or swallow-stone is no new invention; this charm comes from Marcellus Empiricus.² The second passage of the *Læceboc* says that 'Domne Helias Patriarcha on Ierusalem' sent to King Alfred tidings of the virtues of a wonder-working stone:

Se hwita stan mæg wiþ stice 7 wiþ fleogendum attre 7 wiþ eallum uncupum brocum; þu scealt hine scafan on wæter 7 drincan tela micel 7 þære readan eorþan dæl scafe þær to; 7 þa stanas sint ealle swiþe gode of to drincanne wiþ eallum uncuplicum þingum. Þonne þæt fyr of þam stane aslegen, hit is god wiþ ligetta 7 with þunorrada 7 wiþ ælces cynnes 3edwolþing 7 gif mon on his wege biþ 3edwolod, slea him anne spearcan beforan, biþ he sona on rihtan.

The white stone is powerful against a stitch and against flying venom³ and against all strange diseases. You must scrape it in water and drink a great deal of it, and scrape a portion of red earth besides, and the stones are all very good to drink against strange things. When fire is struck from the stone it is good against lightning and against thunder and against delusion of every kind, and if any man is mistaken in his way, let him strike a spark in front of him and he is immediately in the right way.⁴

This also is non-classical in origin, whether the story of 'Domne Helias' justifies its ascription to an Eastern source or

¹ Cockayne, *Anglo-Saxon Leechdoms*, ii, p. 306.

² viii. 45.

³ Anglo-Saxon medicine recognized the existence of nine 'flying venoms'.

⁴ Cockayne, *op. cit.* ii. 290. I owe these translations to the kindness of Mrs. Simpson.

not. A third eleventh-century description in Old English of the magical virtues of a stone is preserved.¹ This ascribes eight virtues to the agate, and is particularly interesting as being nearly contemporary with Marbode and sharing in the tradition of which he was to become the chief interpreter. The passage may be translated :

Of the stone called agate it is said that it has eight virtues.

One is that when it thundereth it hurteth not the man that has this stone with him.

The second virtue is that in whatever house it be, therein may not a fiend be.

The third virtue is that no venom may hurt the man that has the stone with him.

The fourth virtue is that if the man that hath on him secretly the loathed fiend if he takes in water any fragments (*gescear-fenes*) of this stone then is that soon made plain in him which before lay hid.

The fifth virtue is (that) he who is afflicted with any disease if he take that stone in water he is soon well.

The sixth virtue is that witchcraft hurteth not the man that hath it with him.

The seventh virtue is that he that taketh the stone in drink he hath the smoother body.

The eighth virtue of this stone is that no bite of snake kind may hurt him that tasteth the stone in water.²

This description differs in some respects from that which was to become canonical in the Middle Ages, and its sources are in some instances difficult to establish. The third virtue is probably derived from Pliny, and is quoted by Bede on the authority of Solinus in his *Ascetica Dubia*. The fifth and seventh come from the traditional sources on which Marbode based his work ; but the first, second, fourth, and sixth virtues are not usually encountered in descriptions of the agate. They resolve themselves into the use of the agate as a phylactery against thunder and evil spirits, and may possibly represent an ancient English traditional belief.

The twelfth century inherited its lapidary tradition direct from Marbode. The scientific lapidary, the mineralogical

¹ Cockayne, *op. cit.*, ii, p. 297.

² I owe this translation to the kindness of Dr. Singer.

treatise, lacked as yet a mediaeval representative; the astrological lapidary of engraved gems had as yet neither been translated into a European language nor brought to the West: and the two types of lapidary, the popular and the symbolic, of each of which Marbode may have left an example, continued to be the types followed in the century after his death. At the same time the rapid growth of vernacular literature brought a new influence to bear upon the form of lapidaries, and to a certain extent freed those types which were translated into the modern tongues from the domination of their Latin prototypes.

The next group of lapidaries in the vernacular are French, and are for the most part direct verse translations of Marbode's hexameter lapidary. Gaston Paris wrote:¹

'La première traduction du Lapidaire de Marbode est peut-être l'œuvre littéraire la plus ancienne, composée en France, qui soit arrivée jusqu'à nous. Je dis à dessein *littéraire*, car plusieurs chansons de geste sont évidemment antérieures, mais elles n'ont pas été, suivant toute vraisemblance, écrites par leurs auteurs, et nous sont parvenues dans des copies, parfois dans des rédactions, fort éloignées de l'œuvre originale.'

This, the most important of these translations, has been often published on account of its philological importance.² The most important of its manuscripts³ was dated by M. Pannier to the end of the twelfth century,⁴ but is now considered to be of early thirteenth-century date.⁵ Another⁶ dates from the second third of the thirteenth century and gives the same text, but with a few modifications and with a later orthographical form. Another late thirteenth-century

¹ Pannier, Introduction to *Les Lapidaires français*, p. vi.

² *Hildeberti et Marbodi opera*, ed. D. Beaugendre, 1708; Beckmann, 1799; Bourassé, in Migne, *Pat. Lat.* vol. 171, col. 1725; Pannier, *Les Lapidaires français*, p. 34; Foerster and Koschwitz, *Altfranzösisches Übungsbuch*, 3rd ed., p. 175.

³ Bib. Nat. lat. 14470, formerly St. Victor 310, fol. 4 b.

⁴ Pannier, *op. cit.*, p. 23.

⁵ Meyer, 'Les plus anciens lapidaires français,' *Romania*, xxxviii, 1909, p. 47.

⁶ Bib. Nat. franç. 24870; formerly Sorbonne 1682, fol. 102 v.

manuscript belongs to Pembroke College, Cambridge.¹ A fourth manuscript² written in North France in 1276-7, omits the first thirty-six lines; a fifth is in the Vatican.³ The manuscripts give no definite clue to its authorship, but the evidence of date, style, and indeed of subject, have made some scholars think that Philippe de Thaon, author of the famous *Bestiaire*, was responsible for it. That work, dedicated to Aelis of Louvain before her widowhood in 1135, mentions

le Lapidaire
Que est estrait de gramaire,

that is, translated from Latin into French; so if this attribution is correct the translation must be earlier than that date. The exigences of French rhymed verse and a different taste in literary decoration led to a certain expansion of the Latin original; for instance, the prologue becomes

Evax fut un mult riches reis:
Lu regne tint des Arabeis.
Mult fut de plusurs chioses sages,
Mult aprist de plusurs lengagges;
Les set arz sot, si en fut maistre,
Mult fut poischant e de bon estre,
Granz tresors ot d'or et d'argent,
E fut larges a tuite gent . . .

till four lines of Latin hexameters are represented by forty-six French octosyllabic verses. In spite of this expansion the sense of the Latin text is respected, and there are comparatively few additions to its content, though in a few places the Latin has been mistranscribed, misunderstood, and mistranslated. Among lesser changes, we find alectorias credited with the power of facilitating childbirth; sapphire with that of preventing poverty; jet recommended as an anaesthetic; and coral as a cure for gout, sore eyes, and other diseases. The epilogue also differs considerably from that of Marbode.

MS. 87, fol. 193.

² Bib. Ste-Geneviève 2200.

³ Vatican Misc. Arm. xv, f. 145, fol. 44-54. French, middle of the thirteenth century. See *Mélanges a'Archéologie et d'Histoire*, pub. par l'École Française de Rome, xvii, 1897, p. 305.

This verse translation achieved a permanent place in French literature; it was from it, and not from the Latin version that a prose version of the lapidary was made in the fourteenth century.¹ A second translation exists in a fifteenth-century manuscript at Turin,² and a search through the libraries of Europe would probably reveal other examples.

Yet in spite of this popularity, this first French verse translation of Marbode was rapidly followed by others, of which three can hardly be later than the reign of Philip Augustus. The 'Lapidary of Modena' is probably the earliest of these,³ and is attributed by philologists to the Ile de France, and possibly to Beauvais. Its style is polished and courtly, and it would appear to be the work of a layman rather than a cleric. Though Marbode is never mentioned in it by name, and though the order in which the stones are given is slightly different, it follows the text faithfully enough. The prologue, the first section—*de Adamante*—and the beginning of that devoted to the agate are missing; the twenty-five other sections given in this version are complete.

A third early French translation of Marbode is preserved at the end of a late fourteenth-century manuscript of the *Trésor* of Brunetto Latini at Berne.⁴ Its style sufficiently disproves Sinner's attribution of it to Brunetto Latini, which reposes upon no foundation but their juxtaposition in a single manuscript. The poem gives certain definite clues to its authorship, which are, however, less easy to elucidate at this

¹ Bib. Nat. franç. 24299, fol. 15; Pannier, *op. cit.*, p. 26.

² MS. Franç. 138; formerly L. vi. 41 and t. i, 32; see Pasini, *Codices MSS. Bibl. Taurinensis*, t. ii, p. 494; E. Stengel, *Mittheilungen aus französischen Handschriften der Turiner Universitäts-Bibliothek*, pp. 43-4; Pannier, *op. cit.*, p. 27.

³ Modena MS. xi, B. Q.; Pannier, *op. cit.*, p. 81. See *Zeitschrift für Romanische Philologie*, xxxii, 1908, p. 686.

⁴ Berne MS. 646; Sinner, *Catalogue des MSS. de Berne*, iii, p. 21; Chabaille, in *Archives des Missions*, iv, 1856, p. 454; Pannier, *op. cit.*, p. 108. For an emended version of his text see Bertoni, 'Su qualche passo dell' antico lapidario francese di Ami o Amis,' in *Zeitschrift für Romanische Philologie*, xxxvii, 1913, p. 95.

distance of time than when they were written. At the beginning of the poem we read :

Cil qui escript oeuvre novelle
De Fortune et de sa roelle,
Et des vices et des vertus,
Puis après se rest embatus
En escripre et en raconter
Comment on puet Amors donter
Et son grant orguel abaissier,
Vaut toutes besoignes laissier,
Et si vost en romans escrivre
La force d'un glorious livre
Des riches pierres precieuses . . .

Further, there are enigmatic references to his name :

Amis ai non, et tos jors aim,
Et d'amors vuel avoir reclaim,
Amant et ameour me claimment
Cilz qui par mon non me reclaimment . . .

The language is that of Champagne ; but the researches of French scholars have so far failed to reveal the existence of a poet of that province who wrote on the Wheel of Fortune, the Virtues and the Vices, and 'comment on puet Amors donter', whose name corresponded with the enigmas of the prologue. This translation, which like the preceding one does not mention Marbode by name, freely abbreviates and paraphrases the original. A great part of the prologue is not to be found in his work ; the epilogue is missing. The whole poem lacks the elegance and conciseness of the Lapidary of Modena, yet its author was undoubtedly well read in contemporary literature. His knowledge of the *Romans d'Alexandre, de Troie, and de Thèbes* is proved by the character of his classical allusions :

Eneas qui tant ot valour
Par achate¹ conquist l'amour
A le roine de Cartage,
Qui puis s'ocist par son folage,

¹ The confusion in mediaeval lapidaries between the stone *achates* and the companion of Aeneas is constant.

Por ce qu'Eneas la lessa,
 Qui par ceste pierre passa
 Maint perilz en mer et par terre
 Quant Lombardie ala conquerre . . .¹

De la terre d'Aufrique viennent
 Et del regne des Mediens
 Que n'est mie des Crestiens;
 De la ou Porrus fist la treille
 Que tant est riche a grant merveille
 Viennent li saphir precieuz . . .²

Mais Alixandre li grigoys,
 Hector et li preus Achilles,
 Tydeüs et Dyomides
 N'avoient pas cure de chiches,
 Ne ne disoient que oniches
 Ne fust bien digne de porter . . .³

The growing influence of *Courtoisie* upon literature is shown by the frequent mention of 'les rois, les ducs et les comtes'⁴ and the recommendation of certain stones as bringing victory in tournaments. Yet, as M. Pannier remarks, the poem is lacking in true courtly elegance, and was more probably written for recitation in the market-place than in the castle.

A fourth French verse translation of Marbode's poem exists in a manuscript of Gonville and Caius College, Cambridge.⁵ This gives all the stones of Marbode's poem in their original order, and gives also two stones, *Exebenus* and *Pedorite*, of which the description is derived from Pliny through some later intermediary. The style of the poem is somewhat arid, but remarkably precise in its rendering of Marbode's Latin hexameters. The prologue and epilogue are missing; but on internal evidence it seems probable that the poem was written at the end of the twelfth or beginning of the thirteenth century in north-eastern France.⁶ A fifth version is given in

¹ ll. 173-80.

² ll. 252-7.

³ ll. 420-5.

⁴ e.g. l. 205.

⁵ No. 435. Pannier, *op. cit.*, p. 145.

⁶ See *Romania*, 1887, xvi, p. 586, Review of Johansson Språklig, *Undersökning af le Lapidaire de Cambridge*.

a thirteenth-century manuscript of the Bibliothèque Sainte-Geneviève¹ beginning:

Nul sage homme doter ne doit
Ken pirres grant vertus ne soit.

A number of French prose translations of Marbode's lapidary have also been described.² These are, however, rather based upon his poem than direct translations of it: they include several stones taken from Eastern sources not known to the Bishop of Rennes, but introduced into France in the course of the thirteenth century. The first is represented by four manuscripts, of which the earliest is dated 1268,³ the second by a single manuscript.⁴ Another French lapidary that is a more or less direct translation from Marbode, apparently made with simultaneous use of the Latin and French versions, is preserved in a manuscript of the first half of the thirteenth century, formerly belonging to the monastery of Rochester.⁵ A fourth is given in a fourteenth-century manuscript of the Bibliothèque Nationale;⁶ it begins: 'C'est li force et les vertus des pierres precieuses, et des herbes et des bestes que li royz Evaux, et Aaron et li roy Foudriez firent . . .' and, as will be seen from its prologue, is derived from other sources besides the lapidary of Marbode. Another lapidary derived from Marbode is given in a thirteenth-century manuscript⁷ at Pembroke College, Cambridge, which also gives⁸ a much

¹ 2200, fol. 120 v.

² Pannier, *op. cit.*, p. 79.

³ Bib. de l'Arsenal B. L. F. 283, fol. 218; Bib. Nat. franç. 2063, fol. 108; Bib. Nat. franç. 1097; Bib. Nat. Florence G. F. 612.

⁴ Berne, 113; Sinner, *Cat. des MSS. de Berne*, t. ii, p. 390; Stengel, *Li Romans de Durmart le Galois*, p. 153; Pannier, *op. cit.*, p. 79.

⁵ B. M. Royal 12 F. xiii, fol. 141 v.; Mann, 'Eine altfranzösische Prosaversion des Lapidarius Marbod's,' *Romanische Forschungen*, ii, 1886, p. 363. Cf. Bib. Nat. Nouv. Acq. Lat. 873.

⁶ MS. franç. 25546, fol. 140. Yet another may be found in the Bibliothèque de l'Arsenal MS. 3516, fol. 213. See *Archiv für das Studium der neueren Sprachen*, lxxviii, p. 321 et seqq.

⁷ 87, fol. 201.

⁸ fol. 204 b.

more interesting verse lapidary of the late twelfth century, entitled 'Une autre manere de lapidarie'. It begins:

Saphir est pere en verité
 Ke ne deit estre rebuté.
 D'itel manere est sa culur.
 Cum li cels est saunz tenebrur.
 Ky cete pere porterat,
 Ia ire de seignur n'avrat.
 Ne ia nen ert desconseillez,
 Ne trahiz ne a mal jugez.

The language of the poem shews it to have been written in England. Its literary style is unadorned; though sharing in the tradition represented by Marbode, it is less influenced by his lapidary than might be expected. Its description of the amethyst, for instance, owes much to Marbode:

Ametistus il est purprin
 Cume gute de vermail vin,
 U cum est rose culurée.
 U matin oue la rusée.
 E de luy ist simple luur
 De flaumbe medlée oue rujur;
 Ne pert mie de feu a estre:
 Tel cum vermeilun poet estre.

But Marbode only says of its properties:

Ke l'a sur sei n'eniverra,
 Ne ja vins ne l'estordira.

while the Pembroke lapidary states:

Icete pere ad vertu grant,
 Issi cum nus trovum lisaunt.
 Ky chastement la porterat,
 A deu e a hommes plerrat,
 Ia diable ne luy nurrat,
 Ne ia fantasme ne verrat;
 Ia mal sunge ne sungerat,
 Ne en dormaunt poür n'avrat;
 Ne mare sur luy ne vendrat,
 Ne dormaunt mal ne luy prendrat;

Ne ia fevre nen averat,
 Ne ia desconfes ne murrat;
 E sa richesce crestrat,
 Ne ia sis sire nel harrad.
 Ses enimis surmunterat.

Further, it will protect him from treason, deceit, prison, and blindness, improve his complexion and keep his hair from falling out, and avert enchantment, choking and strangulation. It is clear that the Pembroke lapidary cannot be regarded as a mere version of Marbode, but must be considered an original work, though its *explicit*

Co dit euax en sun sermun,
 A taunt finit cete resun

shows its unknown author sheltering behind a familiar name.¹

Philippe de Thaon, who has already been mentioned as the possible author of the earliest extant translation of Marbode's lapidary, included a certain number of stones in his *Bestiary*:² adamant,³ the twelve sacred stones, and the pearl;⁴ but the interest of his descriptions lies in his symbolical explanations of the stones.

Alexander Neckam, the foster-brother of Cœur-de-Lion, wrote on the subject of stones not only as a poet in his *de Laudibus Divinae Sapientiae* but also as a learned cleric in his *de Naturis Rerum*, a work which, though strongly influenced by the theory of the four principles, is none the less popular rather than scientific in character. The 'distinctio sexta' of the work *de Laudibus Divinae Sapientiae* is devoted to the

¹ The same library also possesses a volume of manuscripts (III) in which is preserved a prose lapidary, beginning 'Deu de cel omnipotent ki tut guverne bonement; tutes choses vout crier . . .' The first stone described is the diamond: 'Diamant vent de Inde la maiur e de Arabie': and it ends imperfectly in the description of chelonitis.

The first few lines are in verse, and may be the prologue to some lost verse lapidary; the rest is a prose lapidary of an ordinary type.

² See Langlois, *La Connaissance de la Nature et du Monde au Moyen Age*, p. I et seqq.

³ l. 2891.

⁴ l. 3015.

riches of the earth, of which metals and jewels are the chiefest :

Gemmas commendat virtutum mira potestas,
Fulgor scintillans, munditiaque decus.
Has ego naturae miracula, munera grata,
Delicias, studium, divitiasque voco.¹

The virtues attributed to the stones are all taken from Marbode. The author's attempts to give a classical turn to his descriptions may be judged from his account of the agate :

Visibus humanis subducere fertur achates
Gestantem, morbos atque venena fugat.
Rebus in adversis solatia plurima confert,
Aeneasque fuit tutus Achate suo.
Hunc lapidem Pyrrhus digitis aptare solebat,
Sedassetque sitim, Tantale, forte tuam.
Sed quae, Crasse, tuam potuisset vincere gemma ?
Tanta sitis Romam te genuisse docet.

The 'sacred' stones are described first, and a short account of a few animal stones follows.

Bufonem iubet haec nobis servire, lapillus
Quem nutrit capitis cella venena fugat.
Quid quod serpentes lapidem formare feruntur
Qui magnae titulos utilitatis habet ?

The book concludes with short accounts of a few of the stones usually found in lapidaries : jet, coral, ceraunius, heliotropium, asbestos, medus, and others.

The lapidary included in Neckam's *de Naturis Rerum* is of a different character, combining elements of symbolism and of science with the popular tradition. The influence of Solinus and Marbode is evident in the descriptions of the stones, and that of the theory of the four principles in the whole book. The confusion between the agate and the companion of Aeneas is repeated :²

'In verbis et herbis et lapidibus multam esse virtutem conpertum est a diligentibus naturarum investigatoribus. Certissimum autem experimentum fidem dicto nostro facit. Unde Aeneas Achatem socium habuisse dicitur familiarem, eo quod virtute illius lapidis gratiam multorum adquisivit, et a multis

¹ l. 129.

² cap. lxxxv.

ereptus est periculis. Portatus namque lapis achates portan-tem amabilem et facundum et potentem facit. Sic et serenitas conscientiae securum reddit verbis veritatis confidenter utentem et potentem coram illo a quo omnis est potestas.'

The majority of the stones described are thus compared to some moral quality: chelidonium to constancy, magnet to fortitude, aleatorias to prudence, while the description of the beryl, which cures diseases of the eyes, concludes 'Sic et meditatio mortis tutissimum est remedium contra malum curiositatis, quam visus nutrire solet.'

Another work which includes a lapidary is the Provençal *Breviari d'Amor de Matfre Ermengaud*,¹ one of the Friars Minor, which was written in 1288. It contains some hundred and twenty-five lines *De la natura de las peyras preciosas, e de lors vertutz*, which begin

Si tot terra, per natura
Es laia, pesans, escura
A respieg d'autres elemens
Clars e subtils e transluzens,
En la terra, senes duptar,
Et en aigua pot hom trobar
Maintas peiras de gran bontat,
Preciozas, de grand beutat,
Naturalmen de gran vertut.
E de mot mals reden salut . . .

The influence of Marbode over the literary form is here slight, though the properties ascribed to the stones are those given by him, and it is probably his lapidary which may be recognized in the phrase

Diamans es peira dura
En tan que ditz l'escriptura.

The poem describes thirteen stones, all, with the exception of the turquoise, familiar from earlier lapidaries, which ascribe to them the same properties. The epilogue of this section of the *Breviari d'Amor* is interesting, as giving expression to

¹ Published by the Société Archéologique, Scientifique et Littéraire de Béziers, ed. G. Azais, vol. i, 1862, p. 200.

the belief that the sins of their wearers impair the virtues of stones :

Las vertuts sobrenomnadas
 Dieus lo paire á pausadas
 En las peiras per sa bontat ;
 Empero per nostre peccat,
 Maintas vegadas, s'esdeve
 Que la peira bona de se
 Pert sa vertut e sa vigor
 Ab nos em peccador ;
 Quar per nostres maleficis
 Dieus nos tol sos beneficis ;
 Ens dona mais, ens dona meins
 Segon los meritx de las gens ; . . .

This belief reappears in several mediaeval treatises on gems ; the lapidary called that of Sir John Mandeville, for instance, states that it often happens that the good diamond loses its virtue by the sin of him who bears it.¹

Several of the existing manuscript lapidaries of the fourteenth, fifteenth, and sixteenth centuries give directions for the consecration of stones to cleanse them from this contamination.² One manuscript³ gives the following directions :

' Qualiter preciosi lapides sunt benedicendi. Omnis creatura ab ipso deo benedicta est / sed a spectu et a tactu iniquorum hominum corrupta est sed per sanctificationem priorem inde virtutem recepi [*sic*] debent ergo naturales lapides conservati / Illos igitur mitte in nitido panno et mundo et inter missam antequam pax domini dicatur dicat sacerdos super hos istam benedictionem.'

The same prayer is given in all the manuscripts ; another prologue to it is given in Rawlinson MS. D. 358.⁴

' Antiqui sapientes afferunt quod in peccato primi hominis corrupta est rerum natura et maxime lapides preciosi qui ad

¹ See Kunz, *Curious Lore of Precious Stones*, p. 71.

² B. M. Arundel 342, fol. 78, Italian, fourteenth century ; Sloane 1784, fol. 12, French, fourteenth century ; Bodleian, Ashmole 1471, fol. 67 v., English, late fourteenth century ; Glasgow Hunterian MS. 468, fifteenth century ; Bodleian, Rawlinson D. 358, fol. 93 v., English, fifteenth century ; Bodleian, Canonici Misc. 285, fol. 36 v.-38, Italian, fifteenth century ; B. M. Sloane 784, Italian, sixteenth century. In all of these but the last it is given after a lapidary of engraved gems.

³ Sloane 1784.

⁴ Fol. 93 v.

curam humani generis sicut herbe et multa alia sunt creata . Sed etiam in ipsis virtutibus que post peccatum ade remanserunt . per attactum et usum immundorum hominum et per peccata sepius corrumpebantur . Sed tamen sicut baptismate et poenitentia reparatur homo . ut possit ad statum redire prime creacionis . Sic lapides pretiosi consecrationis sanctificatione ad virtutum efficacias reparantur . Et hic modus recreacionis et sanctificationis esse debet . ut in libris veterum invenimus. Primo mittendi sunt lapides preciosi in panno lineo et ponendi super altare usque post missas sanctas . Sicque sacerdos nondum exutis vestibus sacris . dicat benedictionem praemissam . Dominus vobiscum. Oremus. Benedicchio super lapides.

‘Deus omnipotens pater qui etiam per quasdam insensibiles creaturas virtutem tuam omnibus ostendisti. Qui moysi famulo tuo inter cetera vestimenta sacerdotalia rationalis iudicii duodecim lapidibus preciosis adornari precepisti . necnon et Iohanni euangeliste celestem civitatem ierusalem virtutibus eosdem lapides significantibus construendam eternaliter ostendisti . magestatem tuam humiliter deprecamur ut hos lapides ✠ consecrare et ✠ sanctificare digneris per sanctificationem et inuocationem sancti nominis tui ut sint ✠ sanctificati et ✠ consecrati ut recipiant effectum virtutum . quas eis te dedisse sapiencium experientia comprobavit . ut quicumque illos super se portauerit virtutem tuam super illos sibi adesse senciat donaque gracie tue et tutelam virtutis accipere mereatur . Per Jesum Christum Dominum nostrum . Qui tecum vivit et regnat per omnia saecula saeculorum . Amen.’

The first mediaeval lapidary of the popular type to attain the apotheosis of print in the sixteenth century was that then described as ‘Le lapidaire en françoys, composé par Messire Jehan de Mandeville, chevalier.’¹ The question of its authorship is controversial. Some of the best manuscripts agree in their attribution with the printed version ; for instance, the Brussels MS.² has the following preface: ‘Vechi le lapidaire selonc la veriteit et l’oppinion des Yndoiens, si com les pierres pretieuses chi après escriptes sont esprouvées tant de fois que

¹ Venundantur Lugduni in officina Ludovici Lanchart commorantis ante insignium Magdalene, c. 1520. The problems of collation and affiliation arising from the different versions of this lapidary are considered by M. Pannier in the third part of his *Lapidaires français*.

² 11058, fol. 80.

sans nombre, lequeil fist Johan de Mandeville, chevaliers.' A good manuscript of the Bibliothèque Nationale¹ attributes it to 'Jehan de Mande, Chevalier'. It does not appear in any of the editions of Mandeville's collected works, though five times printed separately as his work.² Yet even in these editions his name appears only on the title-page, and not in the preface or prologue. The prologue, indeed, differs in the printed and manuscript versions. The latter all have the same preface:

'Al' honour et a la gloire de la sainte triniteit, de peire, de fils et de saint esperit, je comenche a translateir de latein en franchois alcun livre del lapidaire solonc mon petit engien a l'ayde de conseil de mes maistres sous qui je l'ay empris; et prie a Dieu le glorious que je puisse en teil maniere entendre le sens de l'escripture, que a l'ayde de mes dis maistres qui a ce me seront aidans—les-queiles la benoite viergene Marie vuelhe comandeir a la protection de son benoit enfant notre seigneur Jhesu Crist—ceste emprise puist estre mise a effect et a perfection, en teile maniere que la creatur por cuy je fais ceste translation la puist si entendre qu'eilh en puist useir a la loienge de la benoite Triniteict en qui la garde elle soit todis recommandée et tous ses bienveillans. Amen.'

The printed editions all have a shorter preface:

'A l'honneur et a la gloire de la sainte Trinité: A la requeste de très hault et puissant homme Regnier, en son vivant roi de Sicile et de Jerusalem, ay voulu translater du latin en françois aucun petit livre du lapidaire selon la vraye opinion des Indoïs, et aussi selon l'opinion de plusieurs philosophes et marchans et autres sortes de Gens, lesquels l'ont approuvé tant de foyes qu'à peine est il possible de savoir nombrer.'

M. Pannier pointed out that if, as is evidently the case, this preface mentions René of Anjou, who was born in 1408 and died in 1480, the lapidary cannot have been written under the direction of Mandeville, who died in the second third of the fourteenth century. That this preface is not authentic is further suggested by the fact that there is no mention of King

¹ Franc. 9136, fol. 344.

² See Pannier, *op. cit.*, p. 201; and reprint of the last edition, entitled *Le Lapidaire du quatorzième siècle*, ed. I. de Sotto, Vienna, 1862.

René in the manuscript of the Bibliothèque Nationale¹ written shortly after his death. It has been suggested that the lapidary was written by Mandeville in Latin, and translated into French in the ensuing century by King René's orders, but no manuscript of this supposed Latin original has been recognized, and there is no evidence to support such a hypothesis. The attribution of the lapidary to Mandeville must be considered extremely doubtful; it probably arose from his fame in the fourteenth and fifteenth centuries as an authority on India and the East, 'fons et nutrix gemmarum,' and was further supported by the presence of two authentic chapters in his *Voyages* on diamonds, their generation, discovery, and virtues.²

A further point rests upon the alleged identity of Mandeville and Jean des Prés or d'Outremeuse, for two fifteenth-century manuscripts in the Bibliothèque Nationale³ contain a lapidary described in the prologue as 'Le tresorier de philosophie naturelle des pierres precieuses, escrit par Jean d'Outremeuse, clerc et notaire de Liege'. This differs completely from the lapidary ascribed to Mandeville; it begins: 'Deus pater illuminet me. Moult est Dieu parfait et croire le doit on estre de tres grande puissance comme celui qui tout a fait et fourmé, et tout peult deffaite et diffourmer par sa parolle . . .'⁴

Though the lapidary printed as Mandeville's cannot definitely be ascribed to him, it shares with his *Travels* the quality of fantastic invention, often based upon Eastern sources imperfectly understood. Twenty or more of the fifty-five stones found in most of the manuscripts are taken from

¹ 9136.

² The description and virtues there given as based upon personal experience are taken from Marbode. See D. W. Singer, *Note*, in *The Library*, Oct. 1918.

³ Franç. 12326, and Barrois 368; see H. Michelant, 'Notice sur un MS. de Jean d'Outremeuse,' in the *Bulletin de l'Institut Archéologique Liégeois*, ix, 1873, p. 39.

⁴ The MS., bought by the Baron de Crassier in 1702, has at the beginning of each of its four parts the motto *Priere vaille*, with a shield barry of six. gules and or, on a chief azure three estoiles argent, and the anagram of the motto *Ville a pierre*. I owe these notes to the kindness of M. Omont, of the Bibliothèque Nationale.

Marbode ; a certain number, such as pumice stone, mica, alabaster, are minerals, if not gems ; alectorias, aetites, bezoar, toad-stone, dracontitis, have at all events the authority of tradition. To the same order, if less familiar, belong *gasticoq* and *donalides*, varieties of alectorias ; *murmus*, found in a mouse's nest ; *quirin*, found in the nest of the hoopoe ; and *evandros*, in that of a vulture. Fresh inventions, or at all events fresh adaptations from Eastern sources, are the *Pierre du Soleil* and the *Pierre de la lune* ; and unfamiliar and fantastic are *Cautayne*, *Alacariste*, *Mutel*, *Ricomas*, and *Lapis de math*. The lapidary, in fact, has no claim to scientific or medical learning : its aim is frankly popular, and it may possibly have been commissioned by some jeweller anxious to popularize his wares. Its form was never fixed ; fresh sections were constantly added, and in the later versions (including the printed editions) repetitions are frequent. Many of these later versions are difficult to distinguish from the formless anonymous lapidaries devoid of originality of idea or language, manuscripts of which may be found in almost all the great libraries of Europe.

So far only the popular lapidaries of French origin have been considered, and these are the most important from a literary point of view.

A considerable number of mediaeval Italian lapidaries are in existence, some written in Latin and some in the vernacular. The poem *L'Intelligenza*, commonly attributed to Dino Compagni, though probably somewhat earlier, describes the outward appearance of the Lady Intelligence :

La sua sovramirabile bieltate
Fa tutto 'l mondo più lucente e chiaro ;
Savia, e cortese, e di novella etate,
Sì bella mai non fu al tempo di Daro.
Al mondo non ha pari di nobeltate,
Con ricche veste e con corona d'auro,
Che v'ha LX pietre pretiose,
Sicome il re Evax le compuose,
Quando li dei del tempio l'insegnaro.¹

¹ Ozanam, *Documents inédits pour servir à l'histoire littéraire de l'Italie*, Paris, 1850, p. 325.

The description of these stones—confessedly taken from Marbode—fills up a digression of some four hundred lines. Prose lapidaries are ascribed to Bencivenni Zuccherio¹ and Franco Sachetti.² Many anonymous lapidaries in Italian prose are known³ and an equal number of ordinary type, Italian in origin but Latin in language.⁴ These are frequently accompanied by an account of the manner of consecrating stones.⁵

Spanish mediaeval lapidaries, if not equally numerous, are even more interesting, since they frequently incorporate material from Arabic sources. The Spanish translation from Marbode has already been mentioned; a second Spanish lapidary appears to be derived more directly from the work of Damigeron.⁶ But the most interesting Spanish lapidaries are usually astrological in character and deal with engraved gems.

The popular rhymed lapidary is absent from English mediaeval literature; there is no verse translation of Marbode's work in English, except for a few stanzas by Abraham Fleming quoted by Scot in the sixteenth century. But a considerable number of English manuscripts exist of lapidaries in Latin, French, and English, of which the majority show a preponderating medical element.

Among these it is difficult in some instances to distinguish those which are really scientific in character from those which give a popular account of the virtues of gems. The surest test of

¹ ed. Enrico Narducci, Bologna, 1869.

² See F. Zambrini, *Le Opere volgari a stampa dei Secoli XIII e XIV*, pp. 630, 895, and 1011.

³ e. g. Florence R. Bib. Nat. Cent. MS. Palat. 205, fol. 552-9; Bib. Riccardiana MS. 1050, fol. 117-18; B. M. Add. 16566, fol. 5; Bodleian Canonici Italian 263, xxi, fol. 133 v.; Vatican Cod. 1316 of the Queen of Sweden's MSS.; Venice, Bib. Marciana Cod. Marc. It. Classe xi, No. iv; and Cod. Estense VII. B. 5. (For the last see *Propugnatore*, New Series. iii, 1890, p. 188; V. Finzi, 'Di un' inedita traduzione in prosa italiana del poema *de lapidibus praetiosis* attribuito a Marbodo'.)

⁴ e. g. Bodleian Can. Lat. 178, fol. 131, fourteenth century.

⁵ e. g. Bodleian Add. MS. A. 103, fol. 13-36 v.; Glasgow Hunterian 468.

⁶ Gallardo, *Ensayo de una Biblioteca española* Madrid, 1863, i, p. 891. MS. of the early fifteenth century.

the popular character of such a work would seem to be either its derivation from a French popular lapidary without any serious additions or modifications of a scientific nature, or its preoccupation with definitely magical non-medicinal properties.

A prose lapidary in Latin is given in an English manuscript of the fourteenth century in the Bodleian Library.¹ This belongs to the popular category; it gives prominence to supernatural over medicinal virtues, and records a considerable number of fables concerning stones. It includes the turquoise, and a number of the stones found more commonly in lapidaries than in ordinary life, and while lacking any features of particular interest well represents the ordinary lapidary of the fourteenth century. Another lapidary given in two English manuscripts of the last quarter of the century² is even more definitely popular in character. Instead of describing the virtues of the stones in the ordinary way, the information is given in the form of a receipt:

'Si vis evitare tristitias timores fantasias et lites accipe lapidem qui vocatur onix. qui est nigri coloris et invenitur cornelinus genus et repletum albis venis. et venit de arabia in indiam. et si collo uel digito suspendatur. euitat mox tristitias in homine et terrores in sompno evitat fantasias terribiles et lites. et hoc apud modernos est expertum.'

It will be noticed that this is the contrary of the property usually ascribed to the onyx; but to the other stones described—the magnet, opal, topaz, diamond, emerald, beryl, coral, crystal, and heliotrope—the usual virtues are attributed.

In the fifteenth century, as well as a lapidary in Welsh derived from Vincent de Beauvais, Bartholomaeus Anglicus, and other recognized authorities,³ a certain number of such

¹ Rawl. A. 273, fol. 64 v.

² Bodl. 177, fol. 31 v.; Digby 147, fol. 107. It is there entitled 'Secreta fratris Alberti de Colonia, ordinis Fratrum Predicatorum, super naturis quorundam herbarum et lapidum et animalium efficacia, in diversis libris philosophorum reperta et in unum collecta'.

³ Jesus College, Oxford, cxli, fol. 142-7 v.

treatises were written in English. One, in the collection of Lord Mostyn¹, is of Southern or East Midland origin. It begins: 'Here begynneth the lapidarie the which tellith the vertues of XXXVI precious stones as hit appereth here after. Hit is redde in bokes that Evax the King of Arabye sente a booke to Nero,' but the treatise does not appear to be a translation from Marbode's work. The only English verse lapidary I have encountered occurs in a late fifteenth-century manuscript in the British Museum.² It contains eight stanzas of seven lines, beginning: 'Gentilnesse and curtesie wold be rewarded,' and is chiefly concerned with the virtues of 'Lapis Christus, a passing stidefast stone'. The majority of English lapidaries of the fifteenth century are, however, of commonplace type, and nearly all are of anonymous composition. One³ occurs as an appendix to one of the English translations of the lapidary of King Philip. As usual it gives Marbode as its chief authority. It begins:

'Men fyndes I wryte yt Euax Kyng of Arabe deuysed be letteris . . . how many maneres bene of precyous stones . . . And I haue loked yis buk and yerfor I haue made yis lytill buke yt is gud and lyght to bere and yis I mad for my selfe and for a few of my frendes for he yt purpusus a priue thyng ye lessees ye worschope yerof.'

Descriptions follow of the virtues of fifteen stones. The usual mediaeval tradition is followed on most points, but with some interesting additions. For alectorias, for instance, the sigil of an armed knight and consecration by nine masses is prescribed;⁴ coral 'is a stone yt is mad of ye fome of ye se and ye dew and ye wynd beres itupe into ye eyre and yer it sal congele and wex hard and becomes a stone'; and ceraunius appears as *Saramoyd*, 'for ye Jewes clepyd thonder Serayme'.

¹ Historical Manuscripts Commission, iv, p. 359, Mostyn Hall, No. 225.

² Add. 34360, fol. 58-9 v.

³ Bodleian Add. A. 106, fol. 131 v.-136.

⁴ See p. 103.

Another¹ gives the virtues of opal, *Silonicus* or snail-stone, topaz, medus, alectorias, and chelidonium. Another exists in an incomplete state in a late fifteenth-century manuscript in the Cathedral Library at Peterborough. A typical extract concerns the pearl:²

'Margarita is chief of al stones þet ben wyst & preciose as Jsed seyþ and it haþ þe name margaritia for it is founde in shellis which ben cokelis or in moselys & in schell fyssh of þe see // þe bredying is in schell-fyssh & it is genderd of the dewe of heuen which dewe if schell fyssh receyueþ in certen tymes of þe yer of ye which þers margaritis comen // some ben cleped unyons & þey have a couable name for þer is oonly on ifonde & neuer ij togeder.'

The French popular lapidary is almost always an artistic literary creation; the English is almost invariably a plain and unadorned treatise.

B

The Influence of the Church: Christian Symbolic Lapidaries.

The Church was the dominant factor in the learning of the Middle Ages; no recognized branch of knowledge escaped the influence of clerical interpreters. So far only the popular lapidaries of the age have been considered, and in them the pagan tradition handed on by Marbode was stronger than the influence of any Christian interpretation of the virtues of stones. But meanwhile the symbolic treatises of the Early Fathers on the stones of the High Priest's breastplate and of the Apocalypse were not neglected; Bede, Amatus of Monte Cassino, Hildebert, Hrabanus Maurus, Walafriid Strabo, Richard and Hugues de St. Victor, the author of an anonymous Anglo-Saxon treatise,³ and several other nameless writers have left works on the subject.⁴

¹ Ashmole 1447, fol. 37-8.

² I owe this transcription to the kindness of the Dean of Winchester.

³ B. M. Cott. Tit. D. iii, fol. 98 v., eleventh century.

⁴ See Steinschneider, 'Lapidarien,' in *Semitic Studies in memory of the Rev. A. Kohut*, p. 64.

A twelfth-century MS.¹ from Rufford, Notts., includes such a lapidary, and another MS. of the same date formerly belonging to the small Augustinian priory at Kyme in Lincolnshire² gives another such symbolic explanation,³ apparently dating from the tenth century.⁴

When these treatises are purely symbolical they fall outside the limits of this work, since they are silent on the subject of the virtues of the gems they describe; but as early as the ninth century a Latin glossary⁵ describes the twelve stones of the High Priest's breastplate as those which God loves best, which he has endowed with the greatest virtues. To the writers of the early Middle Ages these stones were canonical; when Benoît de Sainte-More wished in the *Roman de Troie*⁶ to describe the glories of the chamber where Hector rests, he wrote that it was glittering with

les doze pierres jomeles,
Que Dex en eslut as plus beles
Quant precioses les nomma —

and Foucher de Chartres,⁷ describing the plunder taken by the Franks from the tents of the Saracens, begins by enumerating in their right order the twelve stones of the Apocalyptic vision. In the same way several popular lapidaries, such as the old German one beginning

Der erste het Kerbunkelsten,
Dat ny sterne also schen,⁸

¹ B. M. Cott. Tit. D. xxiv, fol. 19 v. Cf. Bodleian Digby 122, fol. 29-32, early twelfth century.

² Now Bodleian Auct. D. 4. 15.

³ fol. 119.

⁴ A German treatise of this type (Munich MS. 536, fol. 82-4) is published in *Germania*, viii, p. 300, by A. Birlinger. A fifteenth-century MS (Lincoln Cathedral 226, fol. 25-6) gives such a lapidary beginning: 'Hi lapides cari dicuntur'; another, beginning: 'Iaspis virorem fidei immarcescentem significat,' will be found in three English MSS. in the Bodleian (Auct. D. 4. 11, fol. 304; Auct. D. i. 5, fol. 99 v.; and Bodl. 864, fol. 283 v). For a table of the variations in the stones of the breastplate, and an account of the derivation from them of the modern birth-month stones, see Kunz, *Curious Lore of Precious Stones*, p. 301.

⁵ Sinner, *Catal. des MSS. de Berne*, i, p. 361 et seq.

⁶ ed. Joly, i, p. 203, ll. 14583-94.

⁷ *Historiens des Croisades*, iii, p. 363.

⁸ MS. Vienna 2940; Pannier, *op. cit.*, p. 213.

and the lapidary of Volemar,¹ give precedence to these stones in their descriptions, even when they are popular in character and contain no element of Christian symbolism.

In the course of the thirteenth century the symbolical commentaries on the Biblical stones must have become more generally known as the educational cleavage between cleric and layman became less marked: and in this century we find an account of the virtues of the gems described added to the symbolical lapidary,² which at the same time takes its place in contemporary popular literature.

At first, as in the Latin poem published by Beckmann,³ this account is given as a separate appendix to the moral treatise, but gradually the two are merged.

An interesting lapidary of a transitional type was written in France, probably early in the reign of Louis IX, and well represents the pious character of that age. Neither the extant manuscripts of the poem⁴ nor the poem itself give the name of the author nor any enigmatic clue to it. In the three earliest known manuscripts of the poem (including two dated 1265) the lapidary follows immediately upon the bestiary of Guillaume le Normand, or 'le clerc de Normandie'. Moreover, the lapidary follows the plan of the bestiary in that it first treats of the *nature* of each stone, and then of its *senefiance*, and shares with it the allegorical and moralizing style which earned for the former work the title of *divin*. M. Pannier, however, considered that certain peculiarities of rhyme found in the lapidary and not in other works by

¹ MS. Vienna lat. 5305, fol. 274 d; 2898, fol. 92 a; Pannier, *ibid*.

² e.g. B. M. Arundel 25, fol. 124; De Virtutibus XII lapidum.

³ From MS. Brussels 2834; Beckmann, *op. cit.*, pp. 138-44.

⁴ Bib. Nat. franç. 14964, dated 1265; 24428, also dated 1265; 14970, early fourteenth century; 2008, late fifteenth century; Chartres 51, fol. 101; B. M. Sloane 213, fol. 24 v.; see Pannier, *op. cit.*, p. 234. Another MS. is Bibliothèque Ste-Geneviève 792, fol. 59 v., which gives a version slightly different from that published by M. Pannier. For another version, Bib. Ste-Geneviève D. f. 21, fol. 79 d, see *Romania*, xxiii, 1894, p. 500.

Guillaume le Normand made an attribution of the lapidary to him hazardous.

The double aim of this lapidary, combining both the description of the nature of the stone and an account of its symbolic meaning, together with a certain verbosity of style, make it a fairly lengthy work; it contains over fifteen hundred lines.¹ Like all the mediaeval French lapidaries, it professes to be a translation:

Cil qui aiment pierres de pris
Viennent oïr que j'ai apris:
Cil qui les pierres aime et prise
Mult s'entremet de haute emprise:
Dou lapidaire a romancier
S'est entremis; dou commencier
L'ancien latin enrommance:
Le rommans des pierres commence.

The prologue cites as the first authority Evax, that is the lapidary of Marbode, and further mentions *Eracle* (in some manuscripts Israel), Moses, Solomon, and Saint John. There follows a section 'Li non des douze pierres', and then descriptions are given of the 'nature' of each of the twelve—*jagonce grenas*, *thopasce*, *esmeraude*, *rubys*, *saphyr*, *jaspe*, *ligure*, *achate*, *amethyste*, *grysolythe*, *onyche*, *beryl*. These descriptions are of the usual popular type; the *jagonce grenas*, for instance

Moult i a bone pierre fine;
Home fait lié et si affine
Son contraire et sa mesestance,
S'il l'esgarde en bone creance;
Et rois est de tel roiauté
Que il tient home en loiauté,
Et les gens por loial le tiennent.
Cil qui ceste pierre mantienent
Pueent passer felons passages:
De vers ne de bestes sauvages
N'a qui l'a garde, ou d'entoschier;
Et li ostes au herbergier
Le reçoit honorablement,
Et de ce dont raisnablement

¹ Text in Pannier, *op. cit.*, p. 238 et seq. See *Romania*, xxiii, 1894, p. 500 (MS. Ste-Geneviève D. f. 21, fol. 79 d).

Le requiert pas ne l'escondit.
 Li vrai livre le nous ont dit.
 En la bible poez veoir
 Qu'en or doit jagonce seoir.

'Mes sire sains Jehans' is given as authority for the fable of the Arimaspi who guard the emerald; the story of Nero's emerald mirror is recounted, and all the usual virtues are attributed to the stones. This part, in fact, resembles the usual popular lapidary in French verse. But it is followed first by a section 'La signification des douze pierres', and then by accounts of the *senefiance* of each of the stones. The blue of the sapphire, for instance,

nous senefie
 L'esperance ou preudom se fie
 Qui garde au haut regne celestre,

for the contemplation of sapphires should raise men's souls to the contemplation of the heavenly kingdom. Saint John saw these stones second in the foundations of the celestial Jerusalem because they typify the second virtue, hope; for the same reason they were put in the second row of the High Priest's rational. Each stone is treated in similar fashion. Then the symbolism of the High Priest's breastplate is explained. God commanded Moses to set the stones in four rows of three:

La trinité qui est toute une
 Ces trois pierres nous deviserent,
 Et les tires senefierent
 Quatre vertus qui doivent estre
 Sor chascun home de bon estre:
Porveance i doit estre mise,
 Et puis *force*, et autre *justise*,
 La quarte doit estre *atemprance*;
 Or avez lor senefiance.¹

There follows an account, 'Des pierres qui furent mises ou fondement de la cité de Jherusalem'—that is, of the four stones, *jagonse balais*, *grysopas*, *calcydoine*, and *sardoine*, which find a place in the foundations of the Heavenly City,

¹ Cf. *Le Livre du Trésor de Brunetto Latini*, ed. Chabaille, p. 255; Pannier, *op. cit.*, p. 230.

but not on Aaron's breastplate. The description of these follows a different plan from that adopted for the twelve stones first enumerated; the account of the *senefiance* of the *jagonse balais* follows directly upon the description of its appearance and virtues; the popular and symbolic elements are united. The *senefiance* of the other three stones is omitted. The lapidary concludes with a description of the diamond, ascribing to it many virtues, in which symbolism finds no place.

The twelfth and thirteenth centuries witnessed the translation of many works from Latin into French verse; in the fourteenth century a new version of many of these works (and indeed of their French verse translations) was produced in French prose. To the second quarter of this century belongs a type of prose lapidary that combines Christian symbolism, literary description, and popular belief in a form that attracts by its artlessness rather than its literary distinction. The prologue of the French version¹ begins thus:

'Pour l'amour le roy Philippe de France que Diex ait en sa garde, c'est li livres de pierres.

'Cil qui cest livre pourchaça cercha mainte abaïe et parla a pluseurs clers et a pluseurs perriers et a pluseurs sages devins pour savoir l'auctorité des pierres et ce que li livre en disoient, et fist translater de latin en romanz et en plain concile par acort de sages clers.'

There can be little doubt that *le roy Philippe* is Philippe de Valois, for the language precludes an attribution to any but the fourteenth century, and the character of the work is not that which might be expected in a work commissioned by Philippe le Bel. Neither the prologue nor any of the manuscripts give any information as to its author; it is true that

¹ MS. Bib. Nat. franç. 12786, fol. 24 v., fourteenth century; 2008, fifteenth century; lat. 11210, fol. 63 v., late fifteenth century; franç. 2009, fol. 73 v., late fourteenth century, &c.; see Pannier, *op. cit.*, p. 289 et seqq. Other MSS. are Bib. de l'Arsenal 2805, fol. 1, fifteenth century; Bib. Ste-Geneviève 2261, fol. 30 v., late fifteenth century (beginning 'Cest livre est translâté de latin en romans en plaine concile . . .', without mentioning King Philip), and B.M. Add. 32085, fol. 124, which differs considerably in its orthography from the text given by M. Pannier, and ends with the description of the *senefiance* of the sapphire.

one manuscript¹ has on the fly-leaf 'A Hugues Ragot', but this is almost certainly an assertion of ownership rather than of authorship. Some authorities have held the opinion that the lapidary was not translated from a Latin original, and that a stereotyped formula was here mendaciously employed; but in a fourteenth-century French manuscript in the British Museum² I have found a Latin lapidary that is, I think, the original of the more familiar French work.³ In this the stones are given exactly in the order employed in the lapidary, 'Cil qui aimment pierres de pris', and the descriptions have a very great resemblance without exact parallelism. This order is followed in the manuscripts of the French version, but in all cases with additions. The earliest manuscript⁴ further gives an account of all the stones previously described taken from Marbode; another fourteenth-century manuscript⁵ further gives instead descriptions of the usual kind of *Alectoire*, *Célideine*, *Jayet*, *Magnete*, *Ceraunius*, *Heliotrope*, *Aspetites*, *Egester*, *Celonites*, *Badia* (sagda), *Medax*, *Calastida*, *Carites*, *Cristal*, and *Aymant*. One of the fifteenth-century manuscripts⁶ gives a similar but fuller list of stones, partly taken from the so-called lapidary of Sir John Mandeville; while another⁷ concludes, like the Latin original,⁸ with a version of the lapidary of engraved stones. This is, however, in both cases quite separate from the other work.

I have found among the manuscripts of the Bodleian two English translations of the lapidary of King Philip, both dating from the fourteenth century. One of these⁹ is written in the Northern or West Midland dialect of the earlier part of the century. It appears to be a direct and accurate translation from the French version. After describing the stones of the breastplate and the Apocalypse, it gives an account of the magical properties of the diamond. The rest of the manuscript is devoted to a treatise *de lapidibus preciosis eciām in*

¹ Bib. Nat. franç. 2009.

² Sloane 1784, fol. 1.

⁴ Bib. Nat. franç. 12786.

⁶ Bib. Nat. fol. lat. 11210.

⁸ Sloane 1784.

³ See Appendix B.

⁵ Bib. Nat. franç. 2008.

⁷ Bib. Nat. franç. 2009.

⁹ Add. 106, fol. 44.

quibus locis, the prologue of which states that it is taken from Marbode.

The second translation¹ is rather later, and is written in the South-Eastern Midland dialect made familiar by Chaucer. It appears to be a second direct translation from the French, and not to be derived from the other English version. Its prototype is the French version represented by the manuscript 2008 français of the Bibliothèque Nationale. Like it, it gives after the stones of the Apocalypse *Allectories*, *Celidoynes*, *Jeet*, *Magnete*, *Teranus* (ceraunius), *Elyotrope*, *Aspites* (aspetites), *Egistes* (egester), *Hadda* (sagda), *Medus*, *Caladista*, *Crystal*, and *Athemaunde* (aymant); but in addition it includes *Aracontalides*, *Carcus*, *Hyenie*, *Dipparea*, *Onidros*, *Diadema*, *Corneal*, and *Alemandine*.

Nor were the lapidaries of the stones of the breastplate and the Heavenly City the only literary manifestations of the symbolism of the Church as applied to precious stones. Gregory the Great² gives a list of the stones appertaining to the nine orders of Angels: sard to the Seraphim, topaz to the Cherubim, jasper to the Thrones, chrysolite to the Dominations, onyx to the Principalities, beryl to the Powers, sapphire to the Virtues, carbuncle to the Archangels, and emerald to the Angels. The representations of the Hierarchy in the Malvern windows and elsewhere will be found to wear jewels nearly corresponding to those of this list. A second type of imaginative treatise on stones which may have had some decorative influence includes literary descriptions of the stones of the Crown of the Virgin, the best known example of which is usually falsely attributed to St. Hildefonse.³ This is planned to comprise six stars, six flowers, and twelve stones placed between them; another such treatise⁴ describes and gives a symbolical explanation of twelve stones arranged in three tiers.

¹ Douce 291, fol. 121.

² *Homiliae in Evangelia*, xxxiv. 7; Migne, *Pat. Lat.*, lxxvi, col. 1250. I owe this reference to the kindness of Mr. G. McN. Rushforth.

³ Migne, xcvi, col. 287; see Pannier, *op. cit.*, p. 223.

⁴ Bollandists, *Acta Sanctorum*, Mars ii, col. 112; see Pannier, *op. cit.*, p. 225.

That the symbolic lapidaries show magical influence only by contamination with the popular type has been proved. Their imagery is their most interesting feature, and through this imagery the twelve stones acquired a peculiar importance in the Middle Ages. Thus we find in the 1300 inventory of St. Paul's Cathedral¹ 'Item quidam lapis de Israel exprimens maiestatem Dei, albi coloris, cum sex circulis argenteis et deauratis, in quibus inseruntur sex magni lapides et sex minores'—a jewel in which the symbolism of stones is fitly crystallized.

C.

The Growth of the Universities: Mediaeval Scientific Lapidaries.

The popular and symbolic lapidaries of the Middle Ages have been considered; there remain those treatises on precious stones which are neither occupied with fables of their origin and their marvellous effects on the affairs of those who wear them, nor with their place in the symbolism of the Church, but with their medicinal properties and their place in that scheme of the universe gradually built up on a basis of analogy by the learning of the Middle Ages. Such a scheme is to be found in certain early manuscripts of Macrobius; the diagram that represented it was popularized by Isidore of Seville, and reappears in the 'Handboc' of Byrhtferth of Ramsey, written in the reign of King Ethelred.² This concord of the four humours, the four elements, the four seasons, and the four qualities—hot and cold, wet and dry—was expanded by the time of Byrhtferth to include a geocentric system giving the four cardinal points, arranged to illustrate 'bisbine littere nominis protoplastis Ade',³ the zodiac, the months, the ages of man, and the winds.

¹ Laborde, *op. cit.*, p. 443.

² C. Singer, 'A Review of the Medical Literature of the Dark Ages, with a New Text of about 1100,' *Proc. Roy. Soc. of Med.*, 1917, vol. x, p. 124; C. and D. Singer, 'Byrhtferd's Diagram,' *Bodl. Quart. Rec.*, vol. ii, No. 14, p. 46.

³ A detail taken from the Book of Enoch; see Bouché-Leclercq, *Astrologie grecque*, p. 606.

God mad al mankynde that lyves on this erthe
 Of foure elementis, als we in boke rede,
 Of fyr & water & aer & erth
 That gendris in us foure humerez, als Aristotilis us rede.¹

The Hippocratean principles of θερμόν, ἡ ψυχρόν, ἡ ξηρόν, ἡ ὑγρόν, form the basis of the theory of the scientific lapidaries of the Middle Ages. This theory is sometimes explicitly, and often implicitly, modified to include the relation imagined to exist between the planets and the component parts of the universe: such a theory is well exemplified in the lapidary of Abolays.

These philosophic abstractions are hardly to be encountered in a lapidary of the popular kind, and their inclusion in any lapidary not of engraved gems may usually be taken to shew that the work falls into the scientific category. A collection of twelfth-century manuscripts, apparently written in England,² includes a description of the pearl in French (fol. 21):

Perla est en la musle si ad num unio . pur ceo que ni avrat que une . les sages dient que les musles sunt uvertes cuntre munt si receivent la rusee del ciel . e descreissent les perles de la rusee . del matin devinent blanches e cleres . e de cele del seir devienent obscures . les ieunes musles portent les plus cleres que les uielles. Kar tant cum ele plus receit de la rusee tant est ele grainur . mais nule nest grainur de une nuce. Sil tune quant eles receivent la rusee dunc perissent les perles. En inde e en bretainne maiur naissent. La perle est tempree entre le freit e le calt. (fol. 21 verso) ele muilet e ele sechet . la grainur est de maior uertud que la maindre . e la clere plus uertuose que la obscure . E la runde mielde que la bothinge . proprement ualt a gute corel . e a ceo que cors trouble . e a cez ki unt pour si ne seuent de quei . le sanc esclatret del cors sin ostet la neire cole . Cum est trop espes . si l'atenui et les oilz confortet. Aristotiles dist coe ui alquanz ki destemprent les perles sin lauerent les blanches

¹ B. M. Sloane 610, fol. 3 v., fourteenth century.

² Bodleian Digby 13; it contains as well the Latin text of Marbode, *Isidore de gemmis*, and a second treatise written in Latin but for one line, 'Iacincti quidam sunt de brun semblant et entre medlet de blanc,' which gives one of the earliest mentions of engraved stones in a lapidary written in England.

taches des cors . si sen alerent. La perle est bona cunter que les oilz tendent trop. Alquanz dient que lem poet metre les escales des musles el liu des perles en medecine.'

The first part of this account is nearly parallel with that of Marbode, but from the inclusion of the phrase 'proprement ualt a gute corel', which reproduces a line occurring in the first French translation of Marbode¹ but not in the original, the text would appear to be the source of the lines added by the author of the French translation. This part of his description is much more scientific in character: the nature of the pearl, midway between hot and cold; the kinds of pearls that have the greatest virtues, and their use against melancholy, are all facts of scientific interest due to the writer of the Anglo-Norman version. His quotation from Aristotle, puzzling as it may be, is further evidence of his preoccupation with learned rather than with popular literature.

The same volume of manuscripts contains² another twelfth-century lapidary, which, though influenced by Marbode, is more medical and therefore more scientific in character than the French popular lapidaries derived from his work. This gives particular instructions as to the employment of the gems; some have different properties used in ointments than when given in potions; others are to be worn as amulets, others are to be steeped in water and the water used for medicinal purposes. It is, in fact, a pharmacopoeia of precious stones. It is interesting to find in it evidence of the influence of the lapidary of engraved gems, then just introduced into England from Eastern sources, in the gorgon or serpent to be engraved on coral. It further gives evidence of belief in a magical jewel of which the design as well as the material is recorded: 'Adamas lapis est similis cristallo qui si clausus sit in argento ad modum crucis ualet contra inimicos et sompnia et fantasmata.'

In the course of the thirteenth century the scientific lapidary of the Middle Ages developed under the hands of the great men of learning and their pupils. If they retained accounts

¹ Pannier, *op. cit.*, p. 65, l. 873.

² fol. 17, Appendix C.

of many properties now dismissed as fabulous, their lapidaries were yet scientific in character; they bear the stamp of the universities as clearly as the popular lapidaries bear that of court and market-place, and the symbolic lapidaries that of the monasteries.

One of the earliest of these thirteenth-century lapidaries is the work of Arnoldus Saxo, of whom nothing is known.¹ His prologue runs as follows:

‘Ad tollendas plurimorum ambiguitates et errores de gemmis lapidibus et sigillis eorum et virtutibus communi omnium utilitati laboravi. Nam que utiliora meliora et notabiliora ab Aristotile et Aaron et Euace rege Arabum et Diascoride sparsim tradita sunt excepi et tam rudibus quam provectis lapidarium sub brevibus ordinavi.’

The mark of the scientific lapidary is seen in the definition of the source of the virtues of gems:

‘Proprietas in lapidibus est que nulli complexioni est attributa, sed cum prima simplicia mixta sunt et ex eis fit virtus una, sicut virtus attractiva in magnete qui ferrum ex uno angulo trahit et ex alio angulo ipsum fugat. . .’

The lapidary itself is alphabetically arranged, based on Marbode but giving quotations from Aristotle and other authorities, though refraining from mineralogical theorizing. It influenced many of the anonymous prose lapidaries of the thirteenth and fourteenth centuries,² and forms the basis of Albertus Magnus’ *de mineralibus*.

Albertus Magnus was born about 1206 and died in 1280: his work falls within the middle years of the thirteenth century. His life at Padua, Cologne, and Paris makes him a representative of the universities of his age, and his position as Provincial of the Dominican Order and expounder of Aristotelian philosophy assures him a place as *Doctor*

¹ See V. Rose, ‘Aristoteles de Lapidibus und Arnoldus Saxo,’ in *Zeitschrift für deutsches Alterthum*, vi, 1875, p. 323.

² e.g. that given in MS. Dd. v. 53, fol. 78, in the Cambridge University Library (probably by John Arderne, fourteenth century); Bodleian Canonici Misc. 285, fol. 2-34, fifteenth century.

Universalis in the history of the thirteenth century. Many manuscripts of his mineralogical treatises exist¹ and 'de mineralibus et rebus metallicis libri quinque' were printed as his in 1495 and 1518.

This treatise is definitely scientific in character. It starts² with the definition of gems as stones in which the watery predominates over the earthy element, giving in consequence a certain degree of translucence. Albertus disagrees with the opinion of Empedocles that their generation is caused by heat, and prefers to consider that being of a watery nature they are formed by coagulation. He further rejects the animistic theory of Democritus: 'nullam enim habent lapides operationem animae congruentem, cum nec alimento neque sensu utantur, nec omnino vita secundum aliquem actum vitae,' and discusses the problem of how far stones can be differentiated and how far they must be considered as a single species, deciding that since 'coagulatio et coagulationis effectus species et passiones materiae sunt et non formae substantiales' they must be considered as different manifestations of the same substance possessing different virtues. In the fourth chapter the conclusion is expressed 'Nos autem ex omnibus his sententiam veram colligentes dicimus causam uerissime generationis esse virtutem mineralem lapidis formatiuam. Virtus enim mineralis quedam communis virtus est efficiens et lapides et metalla et ea quae sunt media inter haec.' The following chapter contains a statement of the lifeless character of gems based upon their lack of alimentary organs. This is followed by an account of the places in which they are found, as a result of which their watery character is reasserted, and the coagulation theory confirmed on the analogy of the petrifying waters of the Pyrenees. In the eighth chapter the threefold operation of the *virtus lapidificatiua* is established: the first and least powerful is that by which it changes only the active and passive qualities of the matter it affects; the next changes not only these qualities but their results, hardness and softness,

¹ e.g. Magdalen College, Oxford, MS. CLXXIV, fol. 51 v.-63, late thirteenth century.

² *de rebus metallicis*, bk. i, cap. 1.

without changing the transparency or opacity of the matter ; and the third changes not only the hardness and softness but also the colour, creating from water stones not entirely transparent, such as chalcedony.

The second part of the first book *de rebus metallicis* considers the classification of gems by colour ; that of all the green stones arises from the same cause, their generation from clear water and burnt earth, and according to the intensity of this the intensity of the colour varies. This is proved by the analogy of the effects of lead on the colour of glass, according to the greater or lesser heat employed.

color

The second book is concerned with the description of precious stones according to the causes of their properties, the properties themselves, and the sigils found upon them. The discussion of the first point is admittedly difficult ; 'multi etiam dubitare videntur an insit lapidibus virtus aliqua de his quae videntur esse in eis, sicut curare antraces, fugare venena, consiliare corda hominum, facere victorias, et hujusmodi, afferentes nihil inesse composito nisi ex compositione et compositis.' The contrary of this, however, is often experienced : the magnet is seen to attract iron, and adamant to prevent such attraction. 'Adhuc autem expertum est saphiros aliquos antraces fugare, et unum tale vidimus oculis nostris.' In spite of his disbelief in the Pythagorean animistic theory, Albertus declares 'lapides absque omni ambiguitate virtutes mirabilium effectuum habere', the cause of which is, according to the Platonists, the elements, but according to Hermes, the celestial bodies. 'Hanc igitur causam isti dicunt quoniam lapides preciosi prae aliis habent mirabiles virtutes, quia videlicet in substantia magis simulantur superioribus et in lumine et in perspicuitate.' For in the heavens are found the four colours most commonly represented in gems : the blue of the firmament like a sapphire, the clear white light of the stars, comparable to diamond and beryl ; the burning light of Mars and of the Sun, like ruby and carbuncle, which are superior to other stones in virtue as the Sun is superior to other planets in splendour ; and fourthly the cloudy gleam seen in some stars and some parts of the heavens, found in such clouded stones as

chalcedony. Avicenna, indeed, says that all marvellous things are brought about through the influence of the heavenly bodies; and since it is clear that the effects of stones are marvellous, 'non complexionales nec elementales,' it can be proved that their form contains some divine matter. This¹ if it is considered according to the celestial powers, higher and lower, and all the constellations and planetary orbits in the signs of the zodiac, and according to its elemental powers, will be found to have great and complex virtues. The second part of the second book contains a lapidary of more than seventy stones alphabetically arranged, derived from Pliny, Isidore, and other sources, and shewing the influence of Marbode and the popular beliefs of the Middle Ages in the number of magical virtues it attributes to the gems it enumerates. Avicenna, Evax, Aaron, Aristotle, Constantinus, Joseph, Isidore, Hermes, Ptolemy, and Thebith ben Chorath are quoted as authorities on various gems, and Eastern influence is evident in the inclusion of such names as *Kakabre* and *Zamech*. The virtues attributed to the gems are for the most part not medicinal in character, but are rather the wonder-working properties made familiar by lapidaries of the popular type. There is a full description of the toad-stone (borax): 'temporibus nostris extractus est de bufone parvus viridis. Aliquos etiam vidimus bufones habentes in se depictos.' The chelidonium or swallow-stone, again, he has seen taken from the nest in August, when it is most powerful. His personal experience of another such gem, the dracontitis or serpent-stone, is also recorded:

'Ego autem in partibus Alamaniae in Suevia vidi lapidem super quem convenerant plusquam quingenti serpentes in montes in quodam prato, et cum transitum faceret ibidem dominus terrae sui milites evaginati gladiis scinderunt serpentes in multa frusta; in fundo tamen quidam magnus serpens iacuit in multas partes scissus, et sub capite serpentis inventus est lapis niger formatus ut pyramis abscissa, non perlucidus in circuitu colore pallido, pulcherrimum habens descriptum serpentem. Et hunc lapidem mihi ab uxore illius nobilis praesentatum cum capite serpentis eiusdem ego habui.'²

¹ cap. 4.

² Cf. Pliny, *Nat. Hist.* xxix. 12, 52-4.

The description of aetites, again, is illustrated by the story of such a stone which he found in a stork's nest in a garden at Cologne; it is such stones which seem to have had a particular interest for him, and which in consequence led him to introduce into his lapidary that element of experience which was eventually to bring the cycle of lapidaries to an end. A further advance is the recording not only of the places where ancient authors have stated gems to be found, but also those where he has found them himself; the iris-stone, for instance, he has discovered in the mountains between the Rhine and Trier. The Kakaman stone appears to be an Eastern disguise of the cameo: 'virtus eius autem fertur esse ex imaginibus et sculpturis quae inveniuntur in ipso.' There are few references to any astrological influences; the power of the chelonites or tortoise-stone only exists 'cum luna primo est accensa et crescens et monoydes. Et iterum cum est vicesima nona monoydes in ultimo decrescens.' The first five chapters of the third part of the second book are devoted to a consideration of the virtues of engraved gems, and include a list of the signs of the constellations;¹ the use of gems as 'ligatura et suspensiones' is then discussed. On this subject Aristotle, Costuben Luca,² Zeno, Plato, Socrates, Dioscorides, Galen, Avicenna, and Hermes are quoted, and a list of the stones they severally recommend for the purpose is given.

The third book describes the metals and their properties. The whole treatise is interesting as showing the gradual transformation of the body of popular belief in the virtues of gems, not through the influence of medical science but through that of a philosophical scheme, so comprehensive as to include such beliefs.³

The *Fasciculus Aureus* of Raymond Lully⁴ contains some

¹ See p. 96.

² Costa ben Luca, *de physicis ligaturis*.

³ The influence of the lapidary of Albertus on the popular 'scientific' lapidary may be seen in such examples as that in Bodleian Digby 196, fol. 11, fifteenth century.

⁴ Frankfurt, 1630. It mentions, p. 308, a lapidary which I have not been able to identify: 'Et satis de virtutibus cuiuslibet tractavimus in

notes on the subject of an alchemical nature ; a manuscript in the British Museum,¹ which professes to be translated from a Catalan work of Lully's, gives a different and fuller version. Its title is given as 'Liber Lapidarii, qui alias dicitur Practica Lapidum pretiosorum, et de compositione lapidis mineralis per principia Raymundi Lullii Maiorici'. It starts with a consideration of the six 'aquae minerales', their impregnation with celestial power, and their alchemical properties. The eighteenth chapter² is devoted to the virtues and properties of the emerald, several of which are recorded as confirmed by personal experience. 'Vidimus quamdiu illum portavimus, multos caducos sanavimus. Et tempestates temporum cum virtute ipsius cessare fecimus, . . . probavimus etiam fessis itinerantibus quod cito erant reformati a laboribus itineris.' He prescribed its use for King Robert, when troubled by a fit of violent madness, since 'lapis smaragdinus donat portanti illum magnam mitigationem, et in corpore hominis destruit impatientiam, et obviat Diabolo tantum, quod non poterit facere malum per tentationem nociuam . . .' For such a cure money should not be taken ; in an act of charity all things have greater power.

The twenty-fourth chapter³ is entitled 'De virtutibus istius carbunculi, seu Rubini : et qualiter est dominus omnium lapidum'. Its virtues are many and powerful : 'Si tu eum portaveris tecum nullum venenum spirituale poterit ubique tibi nocere seu facere malum, nec aer, nec aqua quantumcumque sint venenosae seu venenatae per essentiam subtilem nec aspectus Basilisci quantum sit bene subtilis.' The twenty-sixth chapter is 'De virtutibus et proprietatibus Lapidis Adamantini'.

'Fili lapis iste dat multas et mirabiles virtutes omni homini qui digne illum portat : quum iste lapis custodit hominem ab omnibus somnijs mundum ; et aperit ei spiritus sapientiae, et suum intellectum ad perscrutandum et intelligendum plures et multas res, et causas divinas (*verso*) opera spiritualia, et naturalia ; etsi cessat siue cassat omnia intransia uenena, et

nostro Lapidario, quem scimus tibi missum a domino Odoardo rege Anglorum.'

¹ Sloane 2008, fol. 203. See also Batista y Roca, *Catàlech de les Obres Lulianes* d'Oxford.

² fol. 214

³ fol. 216.

sanat omnes qui cor non habent firmum, et fortificat eos portatusque victoriam [dat] portanti illum contra suum inimicum cum magno honore, et sit portatus clausus in argento.'

It is also employed in crystal-gazing, on which practice Lully appears to have written a treatise. There follows a chapter on the beryl, which is accredited with the power of defending against perils and defeat, and of quickening a man's intelligence. Further, 'Nos cum isto lapide per virtutem infusam in sua natura sanauimus multos de infirmitate epatis et oculorum nimis humidorum, et de impedimentis pulmonis . . .' This work is not, strictly speaking, a lapidary; but it bears valuable testimony to the high estimation in which stones were held in the half-magical medicine of the thirteenth century.

The lapidary which appears as the fourth book of Hildegarde of Bingen's *Liber Subtilitatum Diversarum Naturalium Creaturarum*¹ has been recognized² as an apocryphal document of the thirteenth century. It bears the stamp of that century in the classification it attempts according to the four principles and the bodies and substances that represent them. The manner of generation of each stone is given, and from this its properties are derived. Emerald, for instance, 'fortis est contra omnes debilitates et infirmitates hominis, quia sol eum parat et quia omnis materia eius de viriditate aeris est. Unde qui in corde, aut in stomacho, aut in latere dolet, smaragdum apud se habeat, ut caro corporis sui ab illo incalescat, et melius habeat.' It is further recommended for epilepsy—

'Si quis de caduco morbo fatigatus cadit, cum ita prostratus iaceat, smaragdum in os eius pone, et spiritus eius reviviscit, et postquam ille surrexerit et postquam eundem lapidem ex ore suo abstulerit, eum attente inspiciat et dicat "Sicut Spiritus Domini replevit orbem terrarum, sic domum corporis mei sua gratia repleat ne ea unquam moveri possit"; et sic etiam per novem sequentes dies in mane diei faciat, et curabitur. Sed et eundem lapidem semper apud se habeat, et eum cottidie in mane diei inspiciat et interim, dum eum inspiciat, praedicta verba dicat, et sanabitur.'

¹ Migne, *Pat. Lat.*, vol. 197, col. 1247.

² Singer, *Studies in the History and Method of Science*, 1917, p. 13.

For the administration of nearly every stone some such ceremony is recommended, the magical character of which is veiled by a religious formula. Jacinth, for instance, is to be employed thus :

‘ Accipe siligineum panem calidum, et eum in superiori crusta in modum crucis scinde, non tamen eum per tota frangens, et lapidem istum per scissuram istam deorsum trahe et dic : “ Deus, qui omnem pretiositatem lapidum de dyabolo abiecit, cum praeceptum eius transgressus est, de te, N., omnia fantasmata et omnia magica verba abiiciat, et de te dolorem amentiae huius absolvat.” Et iterum eundem lapidem per calidum panem illum transversum trahens, dic “ Sicut splendor quem dyabolus in se habuit propter transgressionem suam ab eo ablatu est, sic etiam haec amentia quae N. per diversas fantasias et per diversa magica fatigat, a te auferatur et a te deficiat ”; et eundem panem circa scissuram illam, per quam iachant traxisti, illi qui dolet ad comedendum dabis.’

Onyx, since it is generated in clouds, has great virtue against all diseases that arise from the air. Sardonyx, generated by the sun, if it frequently touches the skin and is placed in the mouth, strengthens the intellect, understanding, and all the senses of the body, and drives away anger, stupidity, and undisciplined passions. Sapphire has a similar property ; if a stupid man uses it frequently in the proper manner, he will become wise ; and if irritable, good-tempered. In all twenty-five stones, their kind, properties, and use, are enumerated ; the others are said to be of little use as medicaments ‘ quia nimia humiditas aut nimia siccitas in eis est, quae recta siccitate non temperatur, aut in quibus nimia siccitas in eis est, quae recta humiditate non humectatur ’. The arrangement and classification of the lapidary are new and scientific, while the careful directions for the ritual to be employed are interesting as showing the influence exercised in the Middle Ages by religion upon the formulae of magic, and by magic upon the practice of medicine.

About the middle of the thirteenth century the English Franciscan Bartholomaeus Anglicus published his *de pro-*

proprietas rerum, best known in the translation made by John of Trevisa as a compendium of secular knowledge for the preaching friars.¹ Its thirteenth book, devoted to the subject of precious stones, is not a scientific lapidary in the sense that it attempts to add to the mineralogical science of the time by new methods of classification or fresh discussions of general theories; it partakes rather of the character of the mediaeval encyclopaedia in collecting the evidence from various authorities—Dioscorides, Isidore, Zoroaster, and 'Lapidario'—that is Marbode's treatise. Among these Dioscorides is made responsible for statements which it would be difficult to find in his works, though they are familiar in popular lapidaries. The lapidary contains no original features, and shows the influence neither of contemporary philosophy nor astrology, but John of Trevisa's pleasant English makes it more readable than many lapidaries of more interesting content.

A second and greater *Summa*, written by a preaching friar in the thirteenth century, is the *Speculum Maius* of Vincent de Beauvais.² The eighth book of this great work is devoted to precious stones;³ this also contains no fresh matter, but is a remarkably full collection of quotations from Pliny, Isidore, and other recognized authorities.

A third treatise of the thirteenth century—the *de natura rerum* of Thomas Cantimpratensis or Brabantinus, who lived from 1201 to 1270, also includes a lapidary. This has not been published in full; but from a list of the chapters and a description of the magnet transcribed from it⁴ I have been able to recognize three manuscripts of it which do not give

¹ B. M. Harl. 614. 4789; Berthelet, London, 1805; see R. Steele, *Mediaeval Lore from Bartholomaeus Anglicus*, 1905. The *Contes Moralises* of N. Bozon, which owe much to Bartholomaeus Anglicus, only give the virtues of the magnet. The *de proprietatibus rerum* was translated into French by Jehan Corbechon in 1372.

² Venetiis MDXCI apud Dominicum Nicolinum.

³ A manuscript of this part is B. M. Sloane 3744, fol. 82.

⁴ Steinschneider, *Semitic Studies in Memory of the Rev. A. Kohut*, p. 57.

the name of the author. The earliest¹ is of the fourteenth century; the other two² belong to the succeeding century.³

Like other Latin lapidaries of the thirteenth century, it begins with a general consideration of the virtues of stones; but it does not embark upon any philosophical theory, merely stating that such virtue comes from God, and is evident in many stones. It gives Marbode as its chief source, and even professes to be a translation of his work, which it is not. The sixty-seven stones it describes are arranged in the alphabetical order adopted in the majority of scientific lapidaries. Its content, however, is popular rather than scientific, though a certain moderation is observed in the number of magical virtues attributed to the stones. Like the lapidary of Bartholomaeus, it is a clerical adaptation of the popular lapidary designed for the education of the popular preacher.⁴

The *Fontaine de toutes Sciences du philosophe Sidrach*,⁵ probably written in 1243 by a subject of the Latin provinces in the Levant, has a section⁶ devoted to answering the question, 'De quelles vertus sont les pierres precieuses, et de quantes manieres et ou elles se treuuent et combien sont elles'. There are many gems, but twenty-four of them, corresponding to the twenty-four hours of the day and night, have

¹ Bodl. Rawl. C. 545.

² B. M. Sloane 2428, fol. 2, and Bodl. Rawl. D. 358, fol. 81 (given to St. Alban's Abbey by Abbot John of Whethamsted). A MS. of this work in the Bibliothèque de l'Arsenal (1080, fol. 206 v.) ends 'Explicit liber mineralium nobilium ceu preciosorum lapidum, Scriptus hic et finitus, anno 1340^o, 3^a die septembris, per Iohannem de Berblengheem, magistrum in medicina, . . . Exemplar incorrectissimum fuit; sed feci quod potui.'

³ For a transcript of Rawlinson D. 358 see Appendix D.

⁴ A translation of this work into German verse was made towards the end of the fourteenth century by Conrad of Megenburg (see B. M. Sloane 448), ed. Pfeiffer, Stuttgart, 1861, &c.; Steinschneider, *op. cit.*, p. 58).

⁵ For a *résumé* of the literary history of this work see Langlois, *La Connaissance de la Nature et du Monde au Moyen Age*, p. 180. It was printed in the sixteenth century under the title 'Mil IIII Vingt et quatre demandes avec les Solutions et Responses a tous propoz . . . selon le Saige Sidrac' (Paris, 1531).

⁶ pp. ccxlix-ccliii verso.

special powers: '*Sarde, toupace, esmeraulde, rubis, saphir, iaspe, ligure, amatiste, crisolite, onichiez, beril, cassidoine, sardoine, dyamant, iarconce, dyane, sorige, eracenif, verondor, cotoire, ballay, acaste, crisopate, turquemal.*' The first eleven and agate are the stones of the breastplate; chalcedony, sardonyx, and jacinth come from the stones of the Apocalypse; while the others are, I think, derived from those Eastern sources which strongly influence the whole of the *Fontaine de toutes Sciences*. The virtues of the 'sacred' stones are those which are described in the 'Lapidary of King Philip'; of the rest, *tourquemaux* preserves from poison, riding accidents, and drowning; *sorige*, a green stone brought from the earthly paradise by a river through India and the great desert, is good against gout; *reflambe* is a yellow stone, preventing jaundice; *cotrice*, which is taken from mountain birds that are caught with pieces of goat's flesh anointed with honey, cures diseases of the eyes; *venudor*, a round phosphorescent stone, cures rheumy diseases; and *dyane*, a stone of a reddish colour, found in a fish, stanches blood.

The astrological lapidary is more usually concerned directly with the astrological sigils to be engraved on gems than with the gems themselves, though treatises of this second type are not unknown. A manuscript formerly belonging to the Charterhouse of Mainz¹ begins 'Novem sunt lapides qui sunt in hosto Ierusalem qui continentur planetis'. Carbuncle is ascribed to the sun, sapphire to Venus, topaz to Mercury, emerald to Mars, sard to the Moon, and so forth. The twelve signs of the zodiac then have their stones allotted to them. The usual magical virtue is ascribed to each of the stones enumerated, but no attempt is made to establish a connexion between these virtues and the planet or sign influencing the stone, and no sigils are given.

With the end of the Middle Ages a fresh wave of Eastern influence becomes apparent. The *Liber Aggregatus in Medicinis simplicibus* of Ioannes Serapion, printed in 1473, is described as 'Translatio Symonis Ianuensis interprete

¹ Bodleian Laud Misc. 203, fol. 37, early fourteenth century.

Abraam iudeo tortuosiensi de arabico in latinum'. Its sixth book is the source of the section *de lapidibus* of the beautiful *Ortus Sanitatis* of 1491. Here not only are the names of the stones given in an Arabic as well as in a Latin version, but also a number of Arabic authorities are cited. In describing a hundred and forty-four stones reference is made to Dioscorides, Evax, Arnoldus, 'liber de naturis rerum', Isidore, Pliny, Albertus Magnus, Serapion, Isaac Benjamin, Aristotle, Solinus, 'Phisiologus', Razes, Avicenna, Johannes Mesue, Alexander, Alchindus, Galen, Almansor, Paulus, Platearius, Haly, Constantinus, Huba, Aluredus, Aaron, Solomon, Helynandus, and Servius' scholia on Virgil.¹ The scholarship of the Middle Ages is growing with the New Learning; but the virtues ascribed to the stones, the description of their properties according to the four humours, and the legends of their origin, are all mediaeval.

The aim of mediaeval thought was *reducere ad unum*. How wide was its province and how consistent were its activities may be judged by the way in which it received the lore of the properties of gems, and gave to an inchoate mass of popular tradition a theoretical basis, uniformity of principle, and a place in its reasoned scheme of the universe.

¹ A lapidary reflecting the influence of these works will be found in the Bodleian Ashmole 1475, fol. 519: *Liber de CVIII lapidibus preciosis*, fifteenth century.

V

MEDIAEVAL ASTROLOGY: LAPIDARIES OF ENGRAVED GEMS

THE use of engraved gems as talismans was inherited by Europe from the East. The characteristic of such a talisman is its sigil or device, and this is usually of sacred or symbolic character, often connected with some celestial body of which the astrological influence is thus intensified.

Such talismans, of which examples are recorded in the lapidaries of Alexandria,¹ are best exemplified in two of the extant Alfonsine lapidaries.² These, it will be remembered, are astrological in character, and are not the products of an uncomprehended tradition but of the scientific learning of the court of him who 'abandoned the crown for the astrolabe and forgot the earth for the sky'. But though the sigil of such a talisman is usually conceived to be astrological in origin this is not invariably the case. In the mediaeval lapidaries of engraved gems of Italy, France, and England the astrological element is certainly present, but the sigils and their effects are no longer recorded as depending directly upon the stars. The supposed reason and manner of their action is indeed no longer comprehended: science has become magic.

Moreover, an analysis of these lapidaries discloses other elements. Some of their sigils, it is true, are derived from the figures of the constellations; but a few are taken from such Greek works as the lapidary of Damigeron, and a third category derive their properties from the mediaeval ascription of magical efficacy to the decorative and mythological subjects of engraved gems of the classical period.

The belief in the magical properties of engraved gems is ridiculed by Pliny, and is not to be found either in Anglo-Saxon England or Carolingian France, or indeed in Western

¹ p. 18.

² p. 47.

Europe before the Crusades. Its earliest manifestation in Western Europe does not appear to be earlier than the latter half of the twelfth century; it must have been brought in on the tide of ancient learning that then flowed from Arabic Spain towards the southern coasts of France to such cities as Montpellier, which Benjamin of Tudela described in 1160 as a place where were congregated Arabs of North Africa and merchants of England, France, Portugal, Lombardy, Rome, Genoa, Pisa, Syria, Greece, and Egypt.¹ Then, as Arpe writes:² 'saeculo xiii, dum respirare incipiunt literae, cum iis Astrologia summo in honore esse coepit, et una ars Talismanica.'

The two earliest references to magical engraved gems that I have found in English documents occur in a collection of twelfth-century manuscripts in the Bodleian of which mention has already been made.³ Coral is to be engraved with 'nomen hac nocticula . . . et serpens seu gorgon' to be effective against all enemies and wounds; and some jasper stones are recorded which have 'sculpturam militis armati quidam virginis ad collum stolam habentis et ramum oliue in manu tenentis. quidam leporis quidam aquile quidam ciconie: alii aliarum multarum maneriarum.' The first two sigils are taken from the lapidary of Damigeron;⁴ the hare and the eagle are constellation figures, but are probably not here mentioned in that connotation, but as fairly commonly appearing on classical gems.

The third part of the second book of Albertus Magnus, *de rebus metallicis*,⁵ treats of engraved gems and their sigils. The images found in gems are divided into three classes, not according to their subjects but according to the manner in which they appear, either in cameo, in intaglio, or stained in the substance of the stone. This classification is remarkable, in that it is based on observation, and not upon astrological or

¹ See Devic, *Les Villes de la France méridionale au Moyen Age d'après les Géographes arabes*.

² *de talismanibus*, 1717, p. III.

³ Digby 13, fol. 18 and 20.

⁴ See p. 21.

⁵ See p. 83.

magical theories. The effects of the gems, however, are ascribed to magic and astrology; few men, it is said, can understand the ancient writings on the subject without some knowledge of 'astronomy' and magic. In the second chapter the difference between real and counterfeit gems is discussed with especial reference to the gems of the Shrine of the Three Kings at Cologne, and it is explained that natural images are only found in marble and gems, since other stones are of too heavy and gross material to be sensitive to the impression of the heavenly influences. These influences are rightly considered by the recognized authorities—'Magot graecus et Germa¹ Babylonicus, et Hermes Aegyptius . . . Ptolomaeus sapiens et Geber Hispalensis'—to be the source of the power of engraved gems. For this reason it is important that sigils should be engraved on gems at a time when the constellations influencing their operation are favourably situated in the heavens. Their virtue, similarly, is not of infinite duration; after the influence has ceased to operate 'inutilis remanet imago frigida et mortua, et haec est causa quare quaedam imagines non operantur hoc tempore quod fecerunt tempore antiquo'. The effects of many sigils depend upon the fact that they belong to the northern, southern, eastern or western triplicity of the zodiac; the force of the celestial influences at the time of the engraving of the gems being partly calculable from the force of the wind blowing from that quarter of the sky. From the fact that the rays of the planets fall directly upon the equatorial regions, and only obliquely upon more temperate zones, is derived the greater power of gems found in India and the East. Albertus considers the origin of the sigils to be Eastern; 'traditio enim philosophiae habet mathematicas scientias primum extitisse circa Aegyptum, a mathematicis autem scientiis huiusmodi sculptura habuit exordium.' He then proceeds to describe the virtues of various astrological sigils, following Arnoldus Saxo² fairly closely; first of the four trigons or triplicities of the zodiac, according to their relation to the four principles and the cardinal points,

¹ *Sic*: query Hermes?

² See p. 83.

and then of various constellations—Pegasus, Andromeda, Cassiopeia, Serpentarius, Hercules, the Bears, Saturn, the six sigils of Jupiter, Mars, Venus, the Sun and Moon, Hydra, Centaurus, Ara, Cetus, Navis, Lepus, Orion, Aquila, and Perseus. This is the purest type of the Western lapidary of engraved stones: its astrological character is recognized and explained, and no figures but those of constellations are included.

The eighth book of the *Speculum Naturale* of Vincent de Beauvais¹ gives in the thirty-fifth chapter a short list of sigils; the signs of the zodiac, Serpentarius, Centaurus, 'Cerus, lepus uel venator', and 'Mars armatus aut Venus cum stola'. It ends: 'Hii et alii lapides assignati fuerunt in templo Apollinis regis Persarum, consilio omnium astrologorum, tam Ægyptiorum quam Chaldeorum secundum cursus signorum et horas planetarum.'

The cosmic system of Arnold of Villanova,² comprising the three divisions of the divine, the celestial, and the elementary, dividing the latter according to the four principles, and recognizing the reactions of one part upon another through the agency of the *Spiritus*, included a theory of sidereal influences even more readily than that of Albertus Magnus. The edition of his works published in 1520 includes³ a list of sigils ascribed to him. They differ from the usual list in that they are to be made in metal and not in gems, that they represent the signs of the zodiac only, and their manufacture is not only to be accomplished at particular hours but is also to be accompanied by certain prayers. The first paragraph runs as follows:

'In nomine vivi patris domini nostri iesu Christi accipe aurum purissimum et fundatur sole intrante arietem. D. XV. kal. aprilis. post formetur inde sigillum rotundum: et dum formabitur in rotundum dicas. Exurge lux mundi iesu vere agnus qui tollis peccata mundi: et illumina tenebras nostras; et dicatur psalmus. Dominus dominus noster etc. et cum factum fuerit reponatur: et post luna existente in cancro vel leone sculpatur in eo ab una parte figura arietis dum sol est in ariete et in circumferentia. Arahel tribus iuda. v et vii. et ex

¹ Venice, 1591, vol. i, p. 84.

² c. 1235-c. 1313.

³ fol. 301 v.

alia parte in circumferentia hec sacratissima verba sculpantur. Verbum caro factum est et habitavit in nobis: et in medio alpha et o: et Sanctus Petrus: valet autem istud preciosum sigillum contra omnes demones et inimicos capitales: et contra maleficia: et valet ad lucrum et gratiam acquirendum; et in omnibus subvenit periculis et vectigalibus et valet contra fulgura et tempestates et inundationes aquarum; et contra impetum ventorum et pestilentias aeris: et qui portat eum honoratur et timetur in omnibus causis: et in domo in qua fuerit nullus illi domui nec habitantibus nocere poterit: et valet demoniacis freneticis et maniacis et squinanticis et omnibus passionibus et capitis oculorum et illis quibus reuma descendit a capite: et ut universaliter dicam omnia mala auertit et bona confert: et qui portat eum caveat in quantum poterit ab immundicia et luxuria, et ab aliis peccatis mortalibus: et portetur in capite cum reverentia et honore.'

The other sigils are of similar character, and are directed to be used in conjunction with similar magical inscriptions showing a strange mixture of Jewish and Christian formulae. In every case the sigil prescribed is the figure of a sign of the zodiac.

Another lapidary of engraved gems occurs in an English manuscript in the British Museum¹ dating from the third quarter of the thirteenth century.² The *incipit* is 'Ore comencera i le liure Marbodi de lentaille de Gemmes',³ but this title is almost certainly given because the name of Marbode was at this date that most commonly associated with lapidaries. The text is definitely later, and its baldness of style cannot be considered to have any affinity with Marbode's work. The lapidary first records: 'En quelscunque peres uus trouerez arietem u leonem u Sagittarium entaylé cil ke les porterunt serunt plesans a dieu et a home et naueront ja feure cotidiene, ne ydropesi, mes il serrunt de bon engin e renables.' The fact that the names of the signs are in Latin suggests that

¹ 18. 210, fol. 103 v.-105.

² A second copy, differing only in unessential particulars and almost contemporary, is in MS. 87, fol. 193 v.-197 of Pembroke College, Cambridge.

³ Cf. Corpus Christi (Oxford) 221, fol. 53, fourteenth century: 'Marbodi liber de sculptura gemmarum. In quocumque lapide inveneris arietem,' &c.

the work was originally written in that language, and several Latin lapidaries contain most of the sigils of this treatise in one form or another. It will be noticed that the phrase 'vus trovez' indicates that the gems are to be found, not made. M. de Mély¹ has suggested that this point is of great value in establishing the date of such treatises, since it argues that they were written in an age of glyptic decadence; but though the point is always worthy of notice in examining such a lapidary, it would seem to be of less practical use than might have been expected.

In the extract that has been given from the French lapidary, the three hot and dry signs are enumerated as having power over quotidian fever and dropsy; next the cold and dry signs—the Bull, the Virgin, and Capricorn—are described as having power over ague; the hot and damp signs—Gemini and Aquarius (Libra is omitted)—as preventing quartan fever and paralysis, and the 'freddi animali'—Cancer, Scorpio, and Pisces—as efficacious against tertian fever. The signs of the zodiac finished, the constellations are reached: Jupiter gives love and the fulfilment of desires, Mars and Venus preserve from danger, the Sun and the Moon help the wearer to lead a good life. Mercury gives good sense, the Ship welcome in all parts, the Hare protection from devils, the Dog from dropsy and the bites of mad dogs, the Eagle bestows honour, the Swan preserves from paralysis and fever, and Pegasus from defeat in battle. It is after these that magic, pure and incomprehensible, is reached.

'Si vus trouez une pierre en la quele est entaille un lumbar ky tent en sa mein destre un ceptre et en sa mein senestre un vulture volaun et de sus ses peiz un cocodril la premiere hore par un ior de Samadi ou le unzime hore metez la en un anel de fer et de suz cele pierre de denz le chastim icest signe ΘΖΩΗ, celui qui fra lanel deit estre net et jeun. Nul enchantement ne puet nuire qui la porte ne venim ne puet nuire u el est.'

The figure may be derived from a Graeco-Egyptian type of Zeus; but the whole formula is difficult of explanation and

¹ *Lapidaires grecs*, iii, p. lvii.

based upon traditional magic. This is followed by the description of several sigils of somewhat similar type, each to be set in a ring of the prescribed metal at the proper hour, with, in most cases, a written sign. In several instances a stone is named as essential to the sigil: 'Si uus trouez en un rubi un scorpion entaille et en chescun des pieces une iraign . . . ki ceste pierre portera ia de iraigne blesce ne serra . . . The 'jeusne bachelier tenant une lanterne en sa destre main et la teste dune femme en la senestre' may be derived from the type of Perseus with *harpe* and Gorgoneion; another sigil appears to be that of the Heavenly Twins; the armed man attacking with a sword the serpent beneath his feet may be derived from the type of St. Michael;¹ 'une dimi femme et un demi pessun et en lune mein tiegne un mirror et en lautre un arc' must be a mermaid or nereid. Such types as that of a man and woman standing side by side, a man riding a horse, a basilisk, and a bird with a branch of olive in its mouth suggest the influence of classical gems of an ordinary type, but many of the sigils—such as 'un home ki set sor une charus longobard si ad en son col quatre homes gisanz'—are grotesque and puzzling.² In some cases a different procedure is prescribed from the usual one of setting the stone in a ring; stones engraved with the last-named sigil are to be worn at the neck; if the wearer then makes a pillow of undyed black wool, stuffs it with straw and sleeps on it, he will dream of all the treasures in the land and of how he may obtain them. In some cases the imprint of the sigil has magical force; that of a scorpion and a sagittary in combat will promote discord

¹ Cf. Byzantine amulets with the figure of Solomon overcoming evil or misfortune; Schlumberger, 'Amulettes byzantines anciennes,' in *Revue des Études grecques*, v, 1892, p. 73.

² Cf. the third lapidary of the Escorial Codex of the Alfonsine lapidaries, § 5, *Yargonzà Amariella* (under the influence of Jupiter): 'Et que descende sobresta piedra la virtud de figura de hombre que esté asentado sobre un escanno que haya cuatro pies, et que semeye que le lievan cuatro hombres con alas en los cuellos, et cada pie del escanno quel tenga el hombre en el hombro, et el que sobiere en el, que tenga las manos alzadas contra arriba en manera de como que ruega a Dios.'

between all who are touched by it. Sometimes herbs and other substances are to be set beneath the stone:

'Si uus trouez en une magnete un bachelier nu estant et une pucele que estoit adestre de li nue que eit ses cheuus liez entor et le bachelier eit sor le col de la pucele sa main et ele regarde en terre: metez en un anel dor qui peise doze foiz tant cum la pierre et de sus la pierre metez la lange de une upupe et mirram et sanc de harme tant cum la lange peise. Al ki la portera veintra ses enemis en bataille et en lameison ou cel anel est ne porra nul larron entrer, ne nule beste sauuaage ne nul chien ne porra abaer. Mes bien se gard cil qui la porte ke il toche sanc ne ke il esteigne feu ne ke il gette fer en feu ne kil nule best sauuaage ne nul oisel fierge ne ke il manguce char.'

In some cases—as, for instance, that of the eagle to be engraved on the aetites or eagle-stone—the appropriateness of the sigil is obvious. Towards the end of the lapidary another element is introduced. The stones are described—magnet, celidonium, alectorias, chrysolite, agate, sapphire, and emerald—without any sigil being recorded. For coral, however, 'cest non hethate ou gorgone' is prescribed,¹ and for beryl the sigil given in the *Kyranides*:²

'Berillus si est une piere ke est mut lusante et mut clere en lui deit hom entailler une locuste marine et de suz ses piez une corneille et de sus les genuz metez une herbe cest a sauer savine enclose de un poi dor.'

The lapidary concludes with a short account of twelve stones, ascribing to each a single virtue.

A lapidary of engraved stones is to be found in an English manuscript of the thirteenth century in the Bodleian Library³ beginning:

'In nomine Domini nostri Iesu Christi Hic est liber preciosus, magnus atque secretus sigillorum Ethel, quem fecerunt filii Israel in deserto post exitum ab Egypto, secundum motus et cursus siderum, et quia multi ad similitudinem huius falso facti sunt, in hoc libello subnotauimus.'⁴

¹ Cf. p. 22.

² Cf. p. 18.

³ Digby 79, fol. 178 v.-179 v. Appendix E.

⁴ Cf. Corpus Christi, Oxford, 221, fol. 55: 'In nomine Domini hic est preciosus liber magnus signorum Cethes . . .'; and Bodleian Canonici Misc. 285, fol. 40.

This lapidary first gives sigils for the seven planets, beginning under Mercury¹ with the man sitting upon a plough⁶ holding a fox and a vulture, with four men round his neck, already quoted from the preceding lapidary. An armed figure is prescribed for Mars, a horse and crocodile for Jupiter, a man and woman for Venus, a horse with a kingly rider for Saturn, a woman holding a bird and a fish for the Moon, and a torch-bearer for the Sun. The virtues ascribed to the sigils, the stones in which they should be found, and the metals in which they are to be set agree for the most part with the character of the planets by which they are governed: that of the Sun, for instance, if found in a chrysolite and set in gold, will bring riches. The sigils of the planets are followed by those of a trumpeter on horseback, a monster half horse and half goat, the sign of the constellation the Kneeler, a dove and olive branch, and others also found in the earlier lapidary previously described. One—the head of a man—is clearly taken from a common type of engraved gem; another, ‘*vir nudus et inflatus et alius bene indutus et coronatus et tenet in una manu ciphum in altera ramum herbe*’, appears to be derived from a representation of Dionysus and a satyr. Two sigils—a man with the head of an ox and the feet of an eagle, and a man holding a devil and a serpent, with the sun and moon above and a lion below—appear to be of Gnostic origin. The seventeenth paragraph describes, not the sigil of an engraved gem, but a series of letters to be inscribed upon a ring, while the last paragraph but one gives an account of a stone taken from a water snake, to be worn as a cure for dropsy. The method of obtaining it recalls that prescribed in the *Kyranides*: the serpent is to be hung up by its tail; for five days it is to be approached at the fifth hour of the night, and to be addressed from afar thus: ‘*Ego sum Prothoplaustus de paradiso adam, da mihi lapidem quem habes in ore tuo.*’ A jar of pure water is then to be placed under the serpent, who will allow the precious stone to drop therein.

¹ See Gallardo, *Ensayo de una Biblioteca española*, p. 892, B, for a Spanish lapidary of this type.

The fifteenth-century manuscript of the lapidary of King Philip in the Bibliothèque Nationale¹ also includes two lapidaries of engraved gems, the first of which begins:

‘Honestete recorde la force et la vertu des pierres qui sont entaillées et de celles qui sont enlevées de naturelle enleveure. Moult est grant leur force dessus toutes autres; leur force leur est donnée de la divinité et du Souverain Seigneur. Le viel ancien sy ont moult grans vertus, ce sont cil qui sont en hault entaille, cils ont vertus sur toutes autres tailles.’

This offers certain parallels with the lapidary last described: many of its sigils are indeed the same. Certain peculiarities, however, would seem to point to more direct Eastern or Gnostic influence: in four instances the kind of ring in which the stone is to be set is described, two magical inscriptions are given, and the sigils include such figures as ‘ung homme qui ait visaige de lyon et piés d’aigle et dessous ses piedz ung dragon, qui ait deux testes’, and ‘ung homme qui soit en estang et il ait en la main un faucille levée sur son chief et dessous ses piez cocodril’.

The French manuscript² already quoted as giving the Latin version of the lapidary of King Philip, also contains a lapidary of engraved stones.³ It begins ‘Ego Thetel unus ex filiis filiorum israel qui post transitum maris rubri in deserto de manna comedi et de Rupe aquas bibi et miracula innumerabilia oculis meis vidi et audivi . . .’ This is obviously an expansion of the *incipit* of the lapidary last described: *Ethel* and *Thetel* are clearly variants of the same name. This lapidary first gives the sigils for the planets already described, then those that follow in the last-mentioned lapidary, with the exception of the inscription for a ring, the sigils of a man’s head and a basilisk, and the description of the stone taken from the snake, and then thirty-two sigils more. Some of these—such as the king with four men round his neck, the armed warrior, and two sigils of men and women standing side by side, are repeated in a different form from that in which they appear in the first part. Others, such as the man riding on a fish with

¹ Bib. Nat. franç. 2009, fifteenth century. The fly-leaf bears the name of Hugues Ragot. See de Mély, *Rev. de l’Art Chrétien*, 1893, p. 195.

² Sloane 1784.

³ fol. 5 v.

a peacock over his head and the man holding a flower, are new. After a lengthy description of the properties of litharge the sigils of a few constellations are given: Pegasus, Hercules, the Bear, Saturn, Mercury, Andromeda, Cassiopeia ('pia virgo'), Sagittarius, Chiron, Sacrarium or the Altar, Cetus, the Ship,¹ the Dog, Jupiter, Perseus, the Four Trigons of the zodiac, the Sun and Moon, the Eagle, the Huntsman, the Hare, and Orion. The lapidary ends with the prayer for the sanctification of stones.

This order and these descriptions are more or less closely followed both by a late thirteenth-century English manuscript² and by a fourteenth-century Italian one.³ The latter ends:

'De aliis non credat. Siquis alias sculpturas invenerit eas non credat. Hii enim lapides perpetua consecratione consecrati sunt in templo Appollis secundum cursum signorum et horas planetarum sub Xerese rege Persarum consilio omnium astrologorum tam Aegyptiorum quam Caldaeorum, atque omnium Persarum. In nomine Dei pii et misericordis, soli Deo honor et gloria. Amen.'

'The just and the merciful God' forms yet another link with the East. Another fourteenth-century manuscript of English origin, giving the author's name as Techel, has some phrases of this epilogue as its prologue.⁴ But the attitude of the Church, never approving and not always tolerant of the belief in talismans, induced the writer to add:

'Secuntur quedam relaciones antiquorum scriptorum . de sculpturis lapidum . que non sunt approbande multum . nec penitus refutande . hic ad sciendum quales sunt figurae, que ab antiquis sculpebantur in gemmis virtus lapidum non monstrabat . honoranda est ergo lapidis forma . nec tamen spes in eis ponenda secundum quod scribitur . sed in solo deo . a quo virtus lapidum . et omnis dignitas . impertitur.'⁵

¹ Cf. the inventory of Jean le Bon's jewels made in 1364: 'Item 1 saphir entaillée en une nef à lettres entour.' The inventory also includes '1 signet d'un grenat à 1 soulail dedans' and '1 signet à une topasse où il y a un croissant.' Bapst, *Testament du Roi Jean le Bon*, p. 30.

² B. M. Harl. 80, fol. 105 v.

³ B. M. Arundel 342, fol. 69 v.; see *Archaeologia*, xxx, p. 449.

⁴ Ashmole 1471, fol. 64-5 v., Appendix F. Cf. Corpus Christi College, Oxford, MS. CCXXI, fol. 55-7 v., fourteenth century.

⁵ The text of this lapidary, with the exception of the *explicit*, is closely

The manuscript also gives a second version of Techel's lapidary, of which the prologue is even more explicit: 'Sed non istis opinionibus in omnibus credendis existimo et hic magis ualere ad ornacionem lapidum . quam ad spem ponendam in eis . . . ' This second version is further removed from the original than those hitherto described; the names of the constellations of which the figures are given are in most cases omitted; Andromeda appears as *dromedarius*, and there are other small distortions. This lapidary ends with the prayer for the consecration of gems.¹

The second lapidary of engraved stones given in the manuscript of the lapidary of King Philip in the Bibliothèque Nationale² is a French version of this lapidary, entitled 'Le livre de Gethel'. It begins:

'Selon ce que racompte Gethel le Philosophe, lequel fut très vaillant homme et fit maintes merveilles par la sience d'Astronomie et de Magice, par l'œuvre de nature ès pierres precieuses, lequel philosophe fut au temps de Auctonmaire et Auguste, roi d'Israel, lequel va accorder et trouver la vertu des signes et des planettes et des pierres precieuses, et ce par vertu de sience et de œuvre d'art et de nature, car nature a tel vertu que toujours œuvre et materie tant comme matière lui habandonne, et quant matière lui deffault, elle laisse œuvre, et ce est très grand secret et grand merveille quand elle fait tant de nobles figures en l'air, en feu, en eaue et en terre. Si comme peut apparoir par toutes créatures, tant oiseaulx, poissons, bestes, abres, plantes, métaulx, pierres précieuses, hommes raisonnables, et maintes autres figures, car elle œuvre en toutes celles choses par la voulenté et puissance du souverain créateur pour lesquelles il les ordonna et establit pour son vouloir accomplis. Nature œuvre ès pierres précieuses et y fait maintes figures et saichiez qu'elles ont moult grans vertus que Dieu y a mises et si double leurs vertus selonc les figures que il y a mises, comme dessus est monsté et sera encore mieux

followed by the fifteenth-century English MS. Rawlinson D. 358, fol. 91-2 v. For a French version of the *incipit* see Bibliothèque Nationale franç. 14830, fol. 1; Pannier, *Lapid. français*, p. 203.

¹ For fifteenth-century MSS. of lapidaries of engraved stones of the usual type see Bibl. de l'Arsenal, 2805, fol. 77 v.; 3516, fol. 215; Trinity College, Cambridge, 1122, fol. 173 v.-176 v., &c.

² Franç. 2009. See de Mély, *Rev. de l'Art Chrétien*, 1893, p. 195.

cy après a l'ayde du tout puissant Dieu glorieulx, lequel a donné vertu a toutes choses bonnes et males pour avoir cognoissance du bien, le bien, et du mal, le mal, car le bien est contraire au mal et par le bien serons sauvez et par le mal dampnez.'

This version first gives the signs of the four triplicities of the zodiac, according to the four elements, and then those of the seven planets. These are taken from the lapidary of Techel, but the end of the treatise is new.

'Et saichiez que se tu treuves ès dessus dictes pierres, les dictes figures enlevées comme sont camaieux achates, esquelles a maintes figures, esquelles la vertu de nature y a mises, car leurs natures sont moult grandes et merueilleuses, mais encore te dis que se les dictes figures sont entailliés esdictes pierres le soleil estant esdiz signes ou la lune, et soient regardez de regard de bonnes planettes et toujours taillées en l'heure des bonnes planettes et en leurs regards et espectus . . .'

The lapidary ends with a short account of good and evil planets, and of the influence which they exert over sigils at the time they are engraved.

A French translation of Techel's treatise, apparently made from a Latin version similar to that last described, was published, with the lapidary ascribed to Mandeville, in 1520.¹ This includes a few non-astrological sigils taken from classical gems:

'Un beau chief bien pigné, qui ait une belle face, donne liesse, révérence, et honneur. Un lait chief héricé, qui ait la face yrée, donne à celluy qui la porte deffenses à ses contraires et seurté en faisant toutes choses, et donne victoire contre ses ennemys. Ung chief qui ait longs cheveulx et entremeslez, en semblence et face de veillard fort barbu, donne sapience et stabilité en œuvres . . .'

The manuscript last mentioned also gives² a lapidary of engraved gems, beginning: 'Regi ptholomeo rex acatengi de lapidibus sanctificatis scripsit.' This gives a slightly fuller account of the virtues of the signs of several constellations—

¹ By L. Lanchart, Lyons. See Pannier, *op. cit.*, pt. ii, and T. Wright, 'On Antiquarian Excavations and Researches in the Middle Ages,' *Archaeologia*, xxx, p. 454.

² fol. 64 v. (Appendix).

Pegasus, Andromeda, Cassiopeia, Hercules, Saturn, Jupiter, the Bear, Mercury, the Centaur, Ara, Cetus, the Dog Star, the Ship, the Hare, the Eagle, Perseus, and the signs of the zodiac. The sigil prescribed for beryl by the *Kyranides* is recorded, and then follows a list of magical stones clearly derived from classical gems, beginning: 'Omnis lapis niger . habens capud insculptum . liberat ferentem a frenesi.' Afterwards a sigil—'nomen nocticule'¹—is prescribed for coral, and two crosses and a scarab beetle for emerald. Descriptions are given of adamant, chelidonium, alectorias, and amandinus, and the *explicit* 'hii lapides in templo appollinis . . . sunt consecrati . . . sub xerso rege' is quoted. A shorter version of this lapidary occurs in another fourteenth-century manuscript.²

One of the fourteenth-century manuscripts of the English translation of the lapidary of King Philip³ gives in addition a lapidary of popular type, the first item of which prescribes a figure to be engraved on the stone alectorias.

'He þt will haue vycory apon his enmy and þat he sal noght be ouercomen of no man bere þis stone in a rynge of gold on his fynger ryte hand and on it oper syde of þe hond I grave a knyght armyd his swerd in his hand and efter þt lat syng ix messys apon ye rynge / þt is to say iij of þe Trinite iij of þe Crosse and iij of þe Martirs and when a man has þis ryng upon hym lok þt he make no defayle of synne.'

In this case there is clearly no question of astrological influence, but only of sympathetic magic disguised under a cloak of religion.

A treatise on sigils of a different type is the book of Enoch, represented by a manuscript in the British Museum⁴ and by a fifteenth-century English manuscript in the Bodleian Library.⁵

¹ See p. 22.

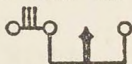
² Rawlinson A. 273, fol. 68 v.

³ Bodleian Add. A. 106, fol. 131 v.

⁴ B. M. Harley 1612, fol. 15-18 v., early fourteenth century. Cf. Ashmole 341, fol. 120 v.-128 r. See de Mély, *Rev. de l'Art Chrétien*, 1893, iv, p. 104.

⁵ MS. e Museo 52, fol. 44-7; Appendix G. For a French translation of a similar work see Trinity College, Cambridge, 1313, fol. 11-25 v.

The latter is arranged in five parallel columns—*Stelle, lapides, herbe, carectus*, and a column giving an account of their virtues. The Pleiades, crystal, fennel, and the character



for instance, go together, and the fifth column informs us:

'Semen feniculi cum thure et argento vivo positum sub crystallo cum caractere coresponte (*sic*) luna coniuncta cum pleiadibus ascendente vel in medio celi custodit lumen oculorum agregat demones et spiritus mortuorum vocat ventos et facit scire secreta et abscondita.'

The British Museum manuscript differs from the Oxford version in not being formally arranged in columns, and in giving not only the 'character' of each star but also the sigil appropriate to it. These sigils are for the most part of familiar type, though their description is often given in a somewhat distorted form and there seems little reason for their association with the star under which they are described. Fifteen stars and their stones, herbs, and characters are recorded; in most cases their cardinal position and the sign of the zodiac in which they appear are given. The exactitude of its astrology, the presence of such linguistic forms as *Gergonsa* and the difference between this treatise and the usual Western lapidary of engraved stones, make it seem not improbable that it is derived from a Spanish source.¹

With very rare exceptions, the Western lapidaries of engraved gems are consistent in type, taking their sigils from the traditions of Alexandrian magic, the astrological signs of the constellations, and the types of classical gems, and deriving most of their virtues from the influences ascribed by astrology to the stars. Their Eastern origin and half-magical character are always implicitly and often explicitly confessed; but though they are never formally recognized by the Church, they find a place in the science of the Dominicans Albertus Magnus and Vincent of Beauvais, and have survived the neglect of three hundred years in manuscripts written in the *scriptoria* of the monasteries.

¹ It is the source of the treatise of Abdul Hassan Isabet ben Cora, familiar in Western MSS. as Thebit *de Imaginibus* (e.g. B. M. Royal 12, C. xviii, fol. 10 v).

VI

MAGICAL JEWELS OF THE MIDDLE AGES

A

Precious Stones and Engraved Gems

BRITAIN, wrote Pliny,¹ cultivated magic with such enthusiasm and with so many rites and ceremonies, that it might be thought that she had taught it to the Persians themselves. If this early body of magical belief is lost, ample evidence remains of the existence of the magic art in Anglo-Saxon times. Many Anglo-Saxon manuscripts deal with charms; Anglo-Saxon medicine shows evidence of magical beliefs and the study of astral influences;² and that magical jewels found their place among these beliefs is shown, not only by the presence of amulets in Anglo-Saxon graves, but also by the literary evidence.

Beads of paste or glass were in common use in ancient Gaul under the name of serpent's eggs; they were thought to be generated from the breath of many serpents congregated together, who shot them into the air from their hissing jaws.³ Pliny knew of a Gaulish knight who was executed by the Emperor Claudius for wearing such an amulet.⁴ These are far from being the only amulets recorded; Beowulf describes

The crest of the helm,
The defence of the head,
It held an amulet,
Fastened about by wires,
That the sword . . .
Might not injure him,⁵

and the wounds inflicted by the sword *Sköfnung* could only be healed by the stone set in its hilt.⁶

¹ *Nat. Hist.* xxx. 4.

² For a list of good and evil days according to the position of the moon and the planets see B. M. Cott. F. i and D. xxviii, fol. 27, transcribed, Wright, *Biographia Litteraria*, i, p. 101.

³ Camden, *Britannia*, ed. Gibson, 1695, p. 683; Frazer, *Balder the Beautiful*, i, p. 15.

⁴ *Nat. Hist.* xxix. 52-4. For survivals of this belief see p. 181.

⁵ Cf. *Codex Exoniensis*, ed. B. Thorpe, 1842, p. 400.

⁶ For this and other instances see Du Chaillu, *The Viking Age*, i. 443.

The proof of the prophylactic character of the majority of Anglo-Saxon jewels is inconclusive; but such ornaments as the beaver's tooth set in a shank of gilt metal and the horse's tooth pierced for suspension, found in a grave near Stamford,¹ were almost certainly considered to have magical power. An element of magic is also evident in some early inscribed jewels; Danish bracteates exist with TO GLWK (To Luck) and similar inscriptions.² It is also difficult to determine the character of some jewels recorded in early inventories; the *Liber Quotidianus* of Edward I, for instance,³ mentions 'unum pendulum auri cum saphiro magno ad pendendum circa collum unius hominis', another 'cum camahuto', and a third set with an amethyst. All these might, on the evidence of the lapidaries, be considered magical: but such evidence does not constitute definite proof. The lapidaries of the Middle Ages shew, however, how constant was the belief in the magical virtues of gems, and the evidence of literature and the inventories of the period proves that this belief was not merely theoretical, but played a real part in everyday life. It is true that the evidence is sometimes difficult to weigh; on the authority of the lapidaries many stones recorded in the inventories may be thought to have been considered magical, though they are not there definitely described as such; but in any case enough so qualified remain to prove the common use of such magical stones.

The Romance of Sir Perceval de Galles describes such a gem:⁴

Siche a virtue es in the stane
 In alle this werlde wote I nane
 Sich stone in a rynge;
 A man that had it in were
 One his body for to bere
 Ther schold no dyntys him dere
 Ne to dethe bringe.

¹ Cf. a bone of a sheep mounted as a talisman from Kingston, and a pierced eagle-talon from Alfriston. Baldwin Brown, *Arts in Early England*, iii, p. 450.

² Stephens, *Old Northern Runic Monuments of England and Scandinavia*, ii, p. 525.

³ ed. Nichols, pp. 348 and 351.

⁴ v. 1460.

Other references to magical jewels will be found in Sir Eglamour,¹ Eracle,² and in the works of Rutebœuf³ and Guillaume de Machaut.⁴ Marco Polo has a story of stones that saved their wearers from death by decapitation⁵ and John of Gadesden in his *Rosa Anglica* of the *annus mirabilis* 1300 prescribes a lodestone and coral necklace to be worn to assist childbirth. Occasionally a ring bears an inscription which points to its being set with a magical stone: one of the time of Richard II, for instance, found in the Palace of Eltham, set with a small cabochon ruby and five crystalline diamonds, is inscribed 'Qui me portera exploitera Et a grant joye revendra'.⁶ Further evidence of the magical use of rings are such entries as that in the 1313 inventory of the jewels of Piers Gaveston: 'Une boiste d'argent endorre pur porter eynz un anel entour le col de un homme.'⁷

A recognition of the practice in thirteenth-century English law is even clearer proof. In 1220 Philip de Albini claimed against Alice de Lundreford for three gold rings which she wrongfully detained. He asserted that when she was ill she sent to him and asked him to lend her the rings for her sickness. He therefore sent them to her by his squire; but when he wished to recover them she begged him for the love of God to leave them with her, as if he took them away she did not think she could recover. He allowed her to keep them for her illness, but could not afterwards get them back. She, however, declared that during the war between King John and the barons the barons' soldiers came while she was unconscious through illness and took everything she had in the world. She further declared that she never received the rings. Finally she paid Philip de Albini ten marks, he having declared that he would not have taken fifty marks for one of the sapphires with which the rings were set.⁸ One of

¹ v. 715.

² v. 1059; see De la Warr Benjamin Easter, *Study of the Magic Elements in the Romans d'Aventure and Romans Bretons*.

³ Laborde.

⁴ Ibid., p. 492.

⁵ Ibid., p. 446.

⁶ *Archaeologia*, xix, p. 411.

⁷ Laborde, *op. cit.*, p. 168, s.v. *Boîte à porter au col*.

⁸ Roll of King's Court, 70 m. 3 d, 71 m. 2 d; *Sussex Archaeological Collections*, lii, 1909, p. 193.

the counts of the indictment of the Chief Justiciar Hubert de Burgh in 1232¹ was that he had furtively removed from the royal treasury a gem which made its wearer invincible in battle, and had bestowed it upon his sovereign's enemy Llewellyn of Wales. Even the Church recognized the belief; the statutes of the Hôtel-Dieu of Troyes, drawn up in 1263, declared: 'Nulle (religieuse) ne doit porter anneaulx ne pierres precieuses, se ce n'est pour cause de maladie.'² Petrus Hispanus³ in his *Thesaurus Pauperum* declared that a sapphire would heal diseases of the eye; and such a stone was given for this purpose to the Treasury of St. Paul's by the grocer Richard de Preston, and presumably continued to be used for the purpose until the Reformation. The magical virtues of precious stones naturally played their part in the mediaeval romances, in assuring love, riches, and victory to their heroes, but the medicinal virtues likewise were not forgotten. Such a virtue is recorded in the *Romaunt of the Rose*⁴, where Chaucer's version reads:

Rychesse a girdel hadde upon,
The bokel of it was of a stoon
Of vertu greet, & moche of might; . . .
The mourdaunt, wrought in noble wyse,
Was of a stoon ful precious,
That was so fyn & vertuous,
That hool a man it coude make
Of palasye, & of tooth-ake.

While Langland in his *Piers Plowman*⁵ wrote:

Fetislich hir fynghres were fretted with golde wyre
And pere-on red rubyes as red as any glede⁶
And diamantz of derrest pris, & double manere⁷ safferes
Orientales & ewages⁸ enuenymes to destroye.

¹ Matt. Paris, *Historia Maior*, ad an. 1232, 1684 ed., p. 318.

² Laborde, *op. cit.*, p. 446, s. v. *Pierres*.

³ Pope John XXI, 1276-7.

⁴ *Complete Works*, ed. Skeat, i, p. 139.

⁵ Text B, ed. Skeat; Passus ii, ll. 12-15.

⁶ Coal.

⁷ Male and female; light and dark.

⁸ Pearls and crystals; or possibly the two kinds of sapphire, oriental (dark) and pale.

'Enuenymes to destroye' and to detect was, indeed, the chief use of precious stones in the precarious days of the Middle Ages and early Renaissance. Holinshed, describing the death of King John, tells us 'the King suspected (the pears) to be poisoned indeed, by reason that such precious stones as he had about him cast forth a certain sweat, as it were bewraeing the poison'. This property of detecting poison was attributed to many stones, of which the most popular, known as *langues de serpent*, were probably fossils or prehistoric arrow-heads.¹ The *Liber Quotidianus* of Edward I² records 'Quinque lingue serpentine in uno standardo argenti qui fuerunt ut credebantur Sancti Ricardis'. An inventory of the jewels of Edward III³ mentions 'Cynk langes de serpentz garnis d'argent dorrez od un collier d'argent dorrez od perle', which appear to have been worn as pendants; but in the fourteenth century they were more usually mounted, either separately or as part of a standing salt, to be upon the table ready for use. The French and Burgundian inventories of this century record a number of such *languiers*.

The inventory of Queen Clémence drawn up in 1328 records 'Un arbre de courail, à langues de serpent',⁴ and a similar *languier*, fastened on to a silver-gilt base resting on four flying serpents, is recorded among the treasures of the Duke of Berry in 1416.⁵ The 1360 inventory of the jewels and plate of the Duke of Anjou—a record of more than eight hundred objects in precious metals, some of incredible splendour and beauty—includes several such objects, the descriptions of which are worthy of quotation:

'Premièrement un grant espreuve, séant aussi comme sur un chandelier, fait en manière d'arbre, et en milieu de l'arbre un grant camahieu à un visage, et au bout des branches de

¹ See p. 26. Some glossopetrae have been identified as fossil shark's teeth. See the picture by Petrus Christus in *The Goldsmith and the Young Couple*, by H. Clifford Smith (privately printed 1915), p. 13.

² ed. Nichols, p. 352.

³ Palgrave, *Kalendars and Inventories of the Exchequer*, iii, p. 175.

⁴ Laborde, *op. cit.*, p. 224, s. v. *Corail*.

⁵ *Ibid.*

l'arbre a plusieurs langues de serpentz et pierres pendenz a chenettes.

'Un autre grant languier, séant sur un pié doré, et un grant chastel ou milieu de l'entablement, doré et esmaillé à maçonnerie, et 11 petites salières au costé du pié. Et sur le chastel dessus nommé a un arbre à feuilles et séant au bout des branches plusieurs langues de serpenz.

'Un homme séant sur un entablement doré et sciséle lequel homme a un chapiau de feutre sur sa teste et tient en sa destre main une salière de cristal garnie d'argent et en la senestre un serisier garni de feuilles et de serizes et oiselez volanz sur les branches, et au bout d'icelles a plusieurs langues de serpenz.

'Un languier doré, séant sur un pié fait en manière d'une rose. Et en la jambe a VI quarrés ou il y a VI esmaux fais en manière de losenge, esquelz esmaux a une feuille de vert et de more sur adzur. Et est la coupepe faite en manière d'un chandelier ront. Et dessuz ycelui a un arbre a IIII branches dont sur les troyz a III langues de serpent blanches. Et sur la quarte branche qui est plus haute que les autres III a une langue de serpent noire.'

The inventory of the treasure of Charles V, made in 1380, also records several pieces of table-plate to which stones used to detect poison were attached. One of these¹ was set with *langues de serpent*: 'Une belle sallière d'argent dorée, de cristal esmaillié, d'un pied semé de marguerites et est le fritelet de v langues de serpent.' Two of these are of particular interest as being adorned with other stones, apparently used for the detection of poison:

'Une sallière d'or, ou sont deux coquilles d'or à couvescle et sur le couvescle de chascune a un pommelet esmaillié de France et une perle ronde et au dessus est la grant serpent, qui estoit ou Louvre d'ancienneté, assise en or, en laquelle pendent, a chainettes d'or, ij esmeraudes, iij saphirs, ij langues de serpent, ij escuçons de France, et viij autres pierres.'²

'Une espreuve que l'on met sur la table du Roy et au dessus est une esmeraude cassée et carrée et à l'environ pendent, a petites chainettes d'or, iij saphirs, iij langues de serpens, j osselet blanc et xj autres pierres.'³

¹ Ibid., p. 490, s. v. *Salière*.

² Ibid., p. 480, s. v. *Reliques historiques*.

³ Ibid., p. 303, s. v. *Espreuve*.

A second inventory made in 1399 also includes 'Une espreuve d'or, en laquelle il y a quatre langues et une maschouère de serpent, garnie de trois saphirs et une esmeraude'. One of the fifteenth-century mazers belonging to All Souls College, Oxford, has in the bottom of the bowl a raised claw-setting that must once have held a prophylactic gem.

Another common 'proof' for poison was a piece of unicorn's horn—that is, of the horn of the narwhal. This is mentioned in many inventories of the late fourteenth and of the fifteenth century. The whole horn, a rarity of great value, was occasionally mounted to stand upon the table, but more usually a small part of it was worn as a pendant. Such pendants are recorded in the inventories of the King of France in 1388, the Dukes of Burgundy in 1391, 1405, 1416, and 1456.¹ Henry VI of England had one made for him 'pour mettre en nostre bouire',² and they are frequently described as 'pour touschier la viande de Monseigneur' or 'à mettre dedans le pot a vin'.

The inventory of the Duke of Burgundy in 1414 records 'Une grande coupe d'or goderonnée, qui se met en iij pièces, et y a au fons licorne et autres choses contre venin que donna au Duc le roy d'Angleterre'. Sometimes pieces of unicorn's horn were set in rings. Such jewels are recorded in the inventories of the Duke of Burgundy in 1391, and of Anne of Brittany in 1498.

Many other examples of stones worn as a protection against poison might be quoted. Charles V in 1380 possessed 'Une petite boeste où dedans sont pendans a une chaisnette d'or, chacune deux pièces en or, bonnes contre le venin, c'est assavoir une petite teste de serpent noire, nommée Lapis Albazahan, et un autre petit osselet blanc quarré'. The Duke of Burgundy in 1408 owned a ring set with a stone said to be good against poison, and the inventory of the Duke of Berry, drawn up in 1416, includes not only 'Une

¹ Laborde, *op. cit.*, p. 362, s.v. *Licorne*.

² Anstis, *Register of the Most Noble Order of the Garter*, i, p. 115, note M.

pierre contre le venin, appelée banzac, comme d'or, pendant a iij petites chaynettes d'or',¹ but also 'Un petit sac de toille, où il a plusieurs pierres pour faire fumigacions'.²

Jean de Troye, in his *Chronique scandaleuse*, states that the Constable de St. Pol at his execution in 1475 turned to one of the friars attending him and said:

'Beau père, véez cy une pierre que j'ay longuement portée en mon col, et que j'ay moult fort aimée, pour ce qu'elle a grand vertu, car elle résiste contre tout venin et preserve aussi de toute pestilence, laquelle pierre, je vous prie que portez de par moy a mon petit fils, auquel direz que je luy prie qu'il la garde bien pour l'amour de moy.'

Charlotte of Savoy owned in 1483 'un bracelet orné de pierres contre le velin'³ and 'une grant bourse faicte sur le mestier de fil d'or et de soye, en laquelle bourse a plusieurs pierres avec une grant langue serpent, lesquelles pierres n'ont point esté estimées, pour ce qu'on ne scet leur vertu'.⁴ Anne of Brittany in 1498 possessed a similar purse of crimson velvet, containing a *langue de serpent* and a toad-stone.⁵

Nor were stones against poison the only magical gems employed. The majority, it is true, were credited with medicinal properties; but a purely magical stone, to judge from the lapidaries, is the 'Pierre de chappon',⁶ tachée de blanc et de rouge, assise en un anel d'or', recorded in the 1416 inventory of the Duke of Berry.⁷ Equally familiar is the *aetites* of the lapidaries, examples of which are recorded as being in 1322 in the possession of the Earl of Hereford and his wife: 'iij peres de egle'.⁸ Similar properties to those of this gem were attributed to a stone belonging to Charles V in 1380: 'une pierre, appelée la pierre sainte, qui ayde aux femmes a avoir enfans, laquelle est enchassée en or et y sont iij perles, vi esmeraudes, deux balays et au dos y a un escu

¹ Laborde, *op. cit.*, p. 445, s. v. *Pierres contre le venin*.

² Ibid., p. 326, s. v. *Fumigacions*.

³ Havard, *Dict. de l'Ameublement*, s. v. *Pierre précieuse*.

⁴ Laborde, *op. cit.*, s. v. *Essai*.

⁵ Ibid.

⁶ Aleatorias.

⁷ Ibid., p. 441, s. v. *Pierre de chappon*.

⁸ Ibid., p. 440, s. v. *Pierre d'aigle*.

de France',¹ while in 1455 the Duke of Burgundy possessed 'une grosse pierre estrange, hors oeuvre, qu'on dit estre convenable et aidant a faire enfanter femmes estans en mal d'enfant'.² Anne d'Armagnac, dame d'Albret, owned in 1470 'une pierre pour toucher les yeux, enchassé en or'.³

A magical stone that appears almost as frequently in inventories as in lapidaries is the *Crapaudine* or toad-stone. One of the earliest mentions of this in an inventory occurs in the list of the Canterbury treasures drawn up in 1321: 'Crapodinus j in auro'.⁴ This gem was sometimes used as a touchstone for poison in pieces of plate: the Duke of Anjou, for instance, owned in 1360:

'Une coupe de cristal ondoïée, a un pié fait en manière d'une rose, sur lequel a iii escuçons des noz armes et le piller est de iii pillers de maçonnerie menuement entaillés et environ a iii hommes qui jouent de plusieurs instrumens et le couvercle est tout doré et crenellé et semé de III escuçons de nos armes et de iii esmaux de fucilles de treffle, et dedens le couvercle a un esmail azure ou quel a un cerf et un lievre, et dessus a un fretel a feuillages, et dedens a un boutonnet de cristal azuré, et dessus ou bout a une crapoudine'.⁵

More usually, however, it was set in a ring. James II of Scotland owned 'a ring with a paddokstane with a charnale'.⁶ The 1416 inventory of the Duke of Berry includes 'sept anneaulx à pierres crapaudines',⁷ and the Duke of Burgundy owned two such jewels in 1467.⁸ Many other examples might be quoted, and a considerable number of existing fifteenth-century rings so set be adduced.⁹

The evidence for the use of engraved stones believed to be endowed with magical properties is equally conclusive, though

¹ Laborde, *op. cit.*, p. 446, s. v. *Pierres*.

² *Ibid.*, p. 441, s. v. *Pierre estrange*.

³ Havard, *Dict. de l'Ameublement*, s. v. *Pierre précieuse*.

⁴ Hope and Legge, *Inventories of Christ Church, Canterbury*, p. 72.

⁵ *Ibid.*, p. 33.

⁶ Thomson, *Collection of Inventories of the Royal Jewelhouse of Scotland*, p. 10.

⁷ Laborde, *op. cit.*, p. 232, s. v. *Crapaudine*.

⁸ *Ibid.*

⁹ e. g. Dalton, *Catalogue of Finger Rings in the B. M.*, 895-904.

it is difficult to judge which of the cameos recorded in mediaeval inventories were so regarded. Many were worn: the superb *parure* of engraved gems made for the coronation of Gisela, wife of Conrad II (the Salian), in 1027, is one of the treasures of the Mainz Museum. Charlemagne, Charles the Bald,¹ and Thomas à Becket² used ancient intaglios for their private seals, and many mediaeval jewels set with engraved gems are extant or recorded in the inventories.

It is hard to say whether Seffrid, Bishop of Chichester in 1159, regarded as wonder-working his ring set with an Abraxas gem, now preserved in Chichester Cathedral.³ More certainly magical were the gems in Piers Gaveston's belt: 'Une ceinture de cuir de lioun, harnessé d'or od camaeux.'⁴ Lion's skin was credited with magical and medicinal properties, and the belt finds a parallel in an item of Charles V's inventory of 1380: 'Ung courroye de cuir de lyon, sans nulle ferrure, en laquelle a cousu encontre en ung cendal, troys enseignes d'or qui ont este faictes pour le mal des rains.'⁵ This inventory records another engraved gem credited with medicinal virtues: 'La pierre qui garist de la goutte, en laquelle est entaillié un Roy en lettres en ebrieu d'une costé et l'autre, laquelle est assise en or a filet et a escripture au dos sur le dit filet.'⁶

That some of the engraved gems of the church treasures were credited with such powers is proved by Matthew Paris's account of one of the gems in the treasury of St. Alban's Abbey, which, doubtless on account of its proximity to the site of Verulamium, was particularly rich in engraved gems.⁷ The chronicler's account is well worthy of quotation:

'Hunc lapidem preciosum, qui videlicet constat ex sardonice, calcedonio, et onice, praeter hoc quod intrinsecus latet, verum

¹ de Mély, *Revue de l'Art Chrétien*, 1893, p. 14.

² Example in New College Muniment Room.

³ King, *Curious Lore of Precious Stones*, p. 128.

⁴ Rymer, *Foedera*, iii, p. 388.

⁵ Laborde, *op. cit.*, p. 240.

⁶ *Ibid.*, p. 446, s.v. *Pierres*. Cf. the cameo of Charles V in the Bibliothèque Nationale.

⁷ B.M. Cott. Nero D. 1; T. Wright, 'Antiquarian Excavations and Researches in the Middle Ages,' *Archaeologia*, xxx, 1844, p. 445.

ipse totus vulgariter Kaadman appellatur, dedit Deo et ecclesiae Sancti Albani devotus ipsius ecclesiae filius et frater de capitulo, bonae memoriae Aethelredus pater beati Edwardi rex Anglorum . . . Iste lapis quia speciosus est et magnus, cum provideretur ei locus idoneus ut collocaretur in feretro interiori tempore Galfridi Abbatis fabricato, consilio eorum qui praeerant operi aurifabrili, reservatus est et depositus in thesauro, ut utile suae virtutis officium temporibus exerceret opportunis. Mulieribus enim parituris efficax confert patrocinium, invocatoque fideliter beati Albani Anglorum prothomartiris nomine non permittit parturientes alicui discrimini subiacere. Dicitur autem quod si violenter aut fraudulenter amoveatur ab ecclesia memorata, virtutem suam penitus est lapis amissurus . . . Insculpitur autem eidem lapidi ymago quaedam pannosa, tenens in dextra hastam, quam serpens rependo ascendit, et in sinistra puerum vestitum tenentem ad humerum quoddam ancile, et aliam manum versus ipsam ymaginem extendentem . . . In quo scilicet castone nomen possessoris, videlicet Beati Albani, et nomen datoris, piissimi videlicet regis Anglorum Aethelredi insculpuntur nigellata.'

This does not tell us at what date the stone was first credited with its virtues: if at the date of its donation to the abbey, it is unusually early for such a belief in the properties of engraved stones, which is otherwise not met with in this country before the end of the twelfth century. More probably this belief is an accretion dating from a later period than the acquisition of the stone by the abbey. Indeed, Matthew Paris goes on to relate that there were two stories current of how the stone had been acquired; the first that it had been given by Aethelred, and the second that it had been presented by one of the abbots. A third version reconciled these two statements, saying that a noble lady having borrowed it, and experienced its efficacy, fraudulently kept it back from the abbey, pretending that she had already returned it. After her death her daughter continued to keep it, but when she too was near her end she restored it to the abbot. Its existence had been almost forgotten, and he therefore took upon himself the glory of having given it to the abbey.

B

Inscribed Jewels

One of the most important types of mediaeval magical jewel is rarely mentioned in the lapidaries and does not derive its power from the virtues of any gem. Names and 'words of power' are early found in magic; the author of the treatise on the *Mysteries of the Egyptians*,¹ sometimes ascribed to Iamblichus, asserts that such names of Assyrian and Egyptian origin have peculiar virtues, and are particularly to be venerated on account of their antiquity.² The Essenes had to swear not to reveal the names of the angels, since their invocation had magical power.³ It was natural that the invocation of such names should be made permanently active by their inscription on a lasting substance such as stone or metal; the mysterious formulae of the Gnostics are the characteristic feature of Gnostic gems. The medicinal use of such charms under the Empire is proved by Severus Sammonicus' recommendation of the familiar Abracadabra⁴ and the directions of Trallianus⁵ for the manufacture of charms invoking the aid of the sun against gout.⁶ The Gaulish Marcellus, private physician to the Emperor Theodosius, used medicinal charms that have lately been recognized as Celtic in origin.⁷

The practice continued until the fall of the Western Empire; the first Council of Rome in 492 forbade the wearing of talismans inscribed with names 'not of angels, as they pretend, but rather with those of demons', and when the tomb of Maria, wife of Honorius, was discovered in rebuilding St. Peter's a small plate of gold was found within with these words written upon it in Greek: *Michael . Gabriel . Raphael . Uriel*.⁸

¹ iv. 2.² See Maury, *Magie et Astrologie*, p. 42.³ Josephus, *de Bello Iudaico*, ii. 7.⁴ See p. 28.⁵ bk. xi.⁶ King, 'Talismans and Amulets', *Archaeological Journal*, xxvi, p. 151.⁷ See *Proc. Soc. Ants. of Scotland*, iv, 1863, p. 211.⁸ M. L. Fauno, *Antichità di Roma*, 1553, p. 154.

The Dark Ages inherited certain of these formulae, and gradually added to them others of Christian origin, which, to judge from the form in which they appear in old English medical literature, were received from Byzantine sources. These were usually to be spoken, or at the most written upon parchment, and it is not till the end of the thirteenth or beginning of the fourteenth century that we find them inscribed upon rings and other objects of personal adornment. In the fourteenth century the practice was general.

The list of *sigilla* ascribed to Arnold of Villanova¹ gives for each sign of the zodiac a magical inscription, a parallel to which can in several instances be found on an extant or recorded jewel. Under Aries the talisman is to be inscribed *Arahel tribus iuda. v et vii. . . . Verbum caro factum est et habitavit in nobis. alpha et o*, and *Sanctus Petrus*; under Libra *Hely, hely lama sabathani; consummatum est, Iesus Nazarenus rex iudeorum*, and *Michael . Joth . Matthaeus . Van.*

An English medical manuscript in the Royal Library of Stockholm² includes a charm against the falling sickness: 'Say yis word ananizaptus in hys ere qhwan he is fallyn down in yt ewyll, and also in a wommanys ere ananizapta, and yei schall neuere more aftir fele yt ewyll.'

The Waterton Collection included a gold ring, found in a tomb at Milan, inscribed:

*Est mala mors capta cum dicitur Ananazapta,
Ananazapta ferit illum qui laedere quaerit.*³

The same formula, with the addition of the line 'Ananizapta Dei nunc miserere mei', is given by Scot in his *Discoverie of Witchcraft*.⁴ Guarini in 1491 in his *Vocabularium* thus

¹ See p. 98. I do not feel certain that these sigils are rightly to be attributed to Arnold of Villanova. In any case they find close parallels in astrological works of the sixteenth century.

² Pub. George Stephens, *Archaeologia*, xxx, 1844, p. 399.

³ King, 'Talismans and Amulets', *Arch. Journ.*, xxvi, 1869, p. 231. For a similar ring see Dalton, *Catalogue of Finger Rings in the B. M.*, 870.

⁴ 1584 ed., p. 243.

explains it: 'Ananisapta mala mors interpretatur et quaelibet littera repraesentat unam dictionem, scilicet: Antidotum Nazareni Auferat Necem Intoxicationis Sanctifice Alimenta Pocula Trinitatis Alma.' Occasionally the word is found in conjunction with other incomprehensible words of magical significance, and sometimes in conjunction with representations of guardian saints. A ring in the British Museum, found near Hornsea, for instance,¹ decorated with five oval projections round the hoop, one of which has a socket with a trefoil-shaped opening at the back, intended for a transparent stone, while the others are engraved with representations of the Trinity, the Virgin and Child, St. George, and St. Christopher, has the following formula engraved within the shank: GUT · GOT · HUNUYU · ANANIZAPTA.

The first part of the formula appears to be derived from another charm against the falling sickness. The last leaf of a fourteenth-century manuscript of Theophilus² directs: 'Against the falling sickness write these charms upon a ring: ✠ ON THEBAL GUTGUTHANI and within ✠ ERI GERARI.' This type of charm is met with in a shortened or extended form on several jewels; three rings are recorded inscribed THEBAL GUTH GUTHANI;³ one found in Rockingham Forest in 1841⁴ is inscribed outside ✠ GUTTU : GUTTA : MADROS : ADROS, and inside UDROS : UDROS : : THEBAL ; and a gold one from the Glamorgan coast⁵ has on the outside ZARA · ZAI · DEZEVAL, and within ✠ DEBAL · GUT · GUTTANI. A second type, that has some syllables in common with this, is represented by a silver ring of the fourteenth century from Berne⁶ inscribed YRYRRAGUGUBER-ALTERAMIALPLAEZERAE and by a silver ring brooch in the Waterton Collection⁷ inscribed ✠ EZERA · EZERA ·

¹ *Proc. Soc. Ant. Lond.*, xi, 1887, p. 386.

² Croker, *Catalogue of the Londesborough Collection of Rings*, p. 19.

³ *Arch. Journ.*, iii, 1846, pp. 267, 358; v, 1848, p. 159.

⁴ *Ibid.*, iii, 1846, p. 357.

⁵ *Ibid.*, iii, 1846, p. 358.

⁶ *Ibid.*, xxvi, 1869, p. 229.

⁷ *Gentleman's Mag.*, June, 1863, p. 735; *Arch. Journ.*, xxvi, 1869, p. 229.

ERAVERAGAN · ✠ GUGVRALTERANI · ALPHA · ET · Ω
 and on the under side ✠ AOTVUNO OIO MO OOIO AV.
 Another formula is GEREL ✠ GOT ✠ GUT ✠ HAI ✠ DABIR
 ✠ HABER ✠ HEBER.¹ Scot's *Discoverie of Witchcraft*²
 gives a charm against the biting of a mad dog: 'Put a siluer
 ring on the finger, within the which these words are graven
 ✠ Habay ✠ habar ✠ Hebar ✠ and saie to the person bitten
 with a mad dog, I am thy Sauieur, loose not thy life: and
 then pricke him in the nose thrice, that each time he bleed.'
 Thiers, in his *Traité des Superstitions* of 1679, records the
 belief that the falling sickness can be cured 'en proferant ces
 paroles: Dabit, habet, hebet, ou en portant à leur doigt un
 anneau d'argent, au dedans duquel il y auroit écrit ✠ Dabi
 ✠ habi ✠ haber ✠ hebr ✠'. Mr. Waterton discovered
 a variant of part of this formula—EBERDIABER—given in
 a sixteenth-century Venetian book as an aid to memorizing
 a Latin prayer against plague, each letter being the initial of
 the word at the beginning of a verse. M. de Mély has
 published³ an explanation of other elements in the charm.
 Certain phrases of the formulae, alpha and omega⁴ for instance,
 have an obvious derivation.

Another rather lengthy charm was found engraved on
 a four-sided ring dug up near Amiens in 1763:⁵

✠ OE GUTAA ✠ SAGRA ✠ HOGOGRA ✠ IOTHE ✠ HENA-
 VEAET
 ✠ OCCINOMOC ✠ ON ✠ IKC ✠ HOGOTE ✠ BANGUES ✠
 ALPHA 7IB
 ✠ ANA ✠ EENETON ✠ AIRIE ✠ OIRA ✠ AGLA ✠ OMEGA
 ✠ ADONAI
 ✠ HEIERNATHOI ✠ GEBAL ✠ GUTGUTTA ✠ IEOTHIN

¹ *Arch. Journ.*, xxvi, 1869, p. 229.

² 1584 ed., p. 243.

³ 'L'anneau d'Ulger et les Inscriptions cryptographiques', in *Bulletin de la Société nationale des Antiquaires de France*, 1916.

⁴ For the early use of A and Ω in England see Stephens, *Old Northern Runic Monuments of Scandinavia and England*, p. 395.

⁵ Caylus, *Recueil d'Antiquités*, vi, p. 404, Pl. 130; *Arch. Journ.*, xxvi, 1869, p. 229.

Lord Londesborough purchased in 1851 a silver bracelet from the collection of Mr. Charles Mainwaring of Coleby, near Lincoln, that is clearly magical in its intention. From the silver hoop hang four pendants, of one of which only the shank remains. Of the other three, one is a brownish pebble enclosed in three flat bands of silver; one a nut or other vegetable substance held in a cage of silver wire, and the third a plate of metal set on one side with a circular convex pebble and on the other with three smaller pebbles. On the bracelet, which appears to be of late fifteenth or early sixteenth century workmanship, is inscribed in niello:

✠ IONA ✠ IHOAT ✠ LONA ✠ HELOI ✠ YSSARAY ✠ II
✠ MEPHENOLPHETON ✠ AGLA ✠ ACHEDION ✠ YANA
✠ II

II BACHIONODONAVALIꝰILIOR✠
II BACHIONODONAVALIꝰACH ✠¹

One word appearing in both these inscriptions—AGLA—is usually interpreted *Atha Gebri Leilan Adonai*, 'Thou art mighty for ever, O Lord!'² It is found on other jewels: a mediaeval brooch³ is in the shape of the letter A, inscribed AGLA, and *Io fas amer e doz de amer*. Another brooch of similar shape found near Devizes, and exhibited at a meeting of the Archaeological Institute at Winchester,⁴ was inscribed on one side AGLA, and on the other with the names of the Three Kings—JASPAR, MELCHYSAR, BAPTIZAR. Neither the canonical nor the apocryphal evangelists mention the number or names of the wise men of the East who came to the Epiphany; but the number three and probably the names of Jasper, Melchior, and Balthasar were inherited by the Middle Ages from an Eastern Mithraic tradition.⁵ Their names are a common prophylactic inscription on jewels, cups,

¹ Fairholt, *Miscellanea Graphica*, p. 83.

² *Arch. Journ.*, xxvi, 1869, p. 229; *Bulletin des Antiquaires de France*, Mai 1920; *Revue Archéologique*, 1921, xiv, p. 36.

³ Fairholt, *Costume in England*, p. 466.

⁴ *Proc. Arch. Inst. Winchester*, p. xxiv; *Arch. Journ.*, iii, 1846, p. 359.

⁵ For a Byzantine amulet with the figures of the Three Kings associated with magical symbols and inscriptions see Schlumberger, 'Amulettes byzantines anciennes,' in *Revue des Études grecques*, v, 1892, p. 73.

and other objects of fourteenth-century date: a brass, once in the Church of St. Peter, Mancroft, Norwich, gives the reason:

Iasper fert myrrham, thus Melchior, Balthasar aurum,
Hec tria qui secum portabit nomina regum
Solvitur a morbo Christi pietate caduco.

They were not only used as a popular charm, but were even recognized by some members of the medical profession; Bernard Gordon, physician of Montpellier, advised their use against epilepsy.¹ The names of the Three Kings appear in many mediaeval charms, such as that for fever given in the Stockholm medical manuscript and in one of the sixteenth century to recover lost property:² 'Take virgine waxe and write upon yt Jasper ✠ Melchior ✠ Balthazar ✠ and put yt under his head to whom the good pertayneth & he shall knowe in his sleape wher the thinge is become.' Many rings are known with this inscription.³ A brooch so inscribed is recorded in the 1380 inventory of Charles V:⁴ 'Un fermail d'or, à pendre les bourses à la poitrine, escrit de lettres, des noms aux trois Roys de Coulongne, garny de quatre balays à iiij diamans.' The Glenlyon brooch, now in the British Museum, is inscribed with the three names, followed by the last saying of Christ: *Consumatum* (Plate II, 4). *Consumatum est* also appears on a fourteenth-century ring set with a wolf's tooth in the Victoria and Albert Museum, preceded by the words *BURO · BERTO · BERNETO*. This last formula also appears in a lengthy charm for toothache in the Stockholm manuscript of which mention has been made:⁵ 'Boro berto buore ✠ Vulnera quinque dei sint medicina mei ✠ Tahebal ✠ Ghether ✠ Outhman ✠', &c. A fifteenth-century charm for wounds⁶ also mentions the Five Wounds:

'Longinus Miles Ebreus percussit latus Domini nostri Iesu

¹ *Lilium Medicinae*, ii. xxv. Cf. *Revue Archéologique*, 1892, i. 60, and Lynn Thorndike, *The Place of Magic in the Intellectual History of Europe*, p. 20.

² Wright Halliwell, *Reliquiae Antiquae*, i, p. 260.

³ See *Cat. of Londesborough Coll.*, B.M., 518.

⁴ Laborde, *op. cit.*, p. 313, s.v. *Fermail*.

⁵ *Archaeologia*, xxx, p. 397.

⁶ Brand, *Popular Antiquities*, ed. Hazlitt, iii, p. 237.

Christi. Sanguis exuit etiam latus: ad se traxit lancea ✠ tetragrammaton¹ ✠ Messyas ✠ Sother ✠ Emanuel ✠ Sabaoth ✠ Adonay ✠ Unde sicut verba ista fuerunt verba Christi, sic exeat ferrum istud sive quarrellum ab isto Christiano. Amen. And sey thys charme five tymes in the worschip of the fyve woundys of Christ.'

A charm-ring inscribed with other formulae, but consecrated through the worship of the Five Wounds, is recorded in a fourteenth-century manuscript:²

'Take & cause to be gathered on Good Friday, at five parish churches, five of the first pennies that are offered at the cross, of each church the first penny; then take them all & go before the cross & say five paternosters to the worship of the Five Wounds & bear them on the five days, & say each day all much in the same way, & then cause to be made a ring thereof without alloy of other metal & write without it Jasper Batazar Altrapa & write without (*sic*) it Jhesus Nazarenus.'

A ring found in Coventry Park in 1802 is now in the British Museum; it is a broad flat band of gold, engraved on the outside with a representation of Christ rising from the Sepulchre, surrounded by the instruments of the Passion. The wound in His side is inscribed 'The well of everlastingh lyffe'; those in the hands and feet 'The well of comfort', 'The well of gracy', 'The well of pittie', and 'The well of merci'. In this there is nothing magical; but within the shank the ring is inscribed 'Vulnera quinq' dei sunt medicina mei, pia crux et passio XPI sunt medicina michi. Iasper Melchior Baltasar ananyzapta tetragrammaton'.³ A somewhat similar but fuller formula occurs in a fifteenth-century 'Charme for wyked Wych'.⁴

'In nomine Patris et Filii, et Spiritus Sancti, Amen. Per

¹ Tetragrammaton = the unwritable name of Jehovah, on which Arnold of Villanova composed a treatise. See Thorndike, *Place of Magic in the Intellectual History of Europe*, p. 20. For another charm of somewhat similar type see Scot, *Discoverie of Witchcraft*, 1584, p. 233.

² B. M. Arundel 275, fol. 23 b.

³ Sir Edward Shaw, goldsmith and alderman of London, bequeathed in 1487 to sixteen friends rings 'of fyne gold, to be graven with the well of pittie, the well of mercie, and the well of everlasting life', *Archaeologia*, xviii, 1817, p. 307.

⁴ Brand, *Popular Antiquities*, ed. Hazlitt, iii, p. 73.

virtutem Domini sint medicina mei pia Crux ✠ et passio Christi ✠ Vulnere quinque Dei sint medicina mei ✠ Virgo maria mihi succurre, et defende ab omni maligno Spiritu. Amen. ✠ a ✠ g ✠ l ✠ a ✠ Tetragrammaton. ✠ Alpha ✠ Ω ✠ primogenitus ✠ vita ✠ sapientia ✠ Virtus ✠ Iesus Nazarenus rex Iudaeorum ✠ fili Domini, miserere mei, Amen. ✠ Marcus ✠ Matheus ✠ Lucas ✠ Iohannes mihi succurrite et defendite Amen . . .

A version of Luke iv. 30, 'Iesus autem transiens per medium illorum, ibat', was used as a prophylactic inscription in the Middle Ages,¹ and appears on the setting of the cameo of Charles V in the Bibliothèque Nationale.² Mandeville writes:³ 'And therefore seyen some men when they dreden them of theses on any way, or of enemyes, "Iesus autem etc." in tokene and mynde that our Lord passed through oute of the Jews crueltie and scaped safely fro hem. So surely mowen men passen the perele of theses.' An English version of the phrase occurs in a charm 'never to be said, but carried about one, against theives', given by Scot.⁴ Four fourteenth-century Italian rings in the British Museum are so inscribed, as are two English examples of the fifteenth century from Ixworth and Colchester.⁵

Another wonder-working phrase of even more frequent occurrence is the *titulus*: *Iesus Nazarenus Rex Iudaeorum*. The *Revelation to the Monk of Evesham*, written in 1196,⁶ describes an interview between a monk and a goldsmith in Purgatory, in the course of which the monk inquires 'Yeffe hyt were possyble by any thyng that the folke myght schonne and eschewe soden dethe?' The goldsmith replies:

'Sothely and yf y hadde knowyn whenne that y was in the world leuyng suche thyngys as I knowe nowe y wulde haue

¹ It appears on the first gold noble of Edward III struck to commemorate the battle of Sluys, and on the sovereign of Henry VII, several specimens of which exist pierced for suspension and much rubbed by wear. See *Num. Chron.*, 1882, p. 298.

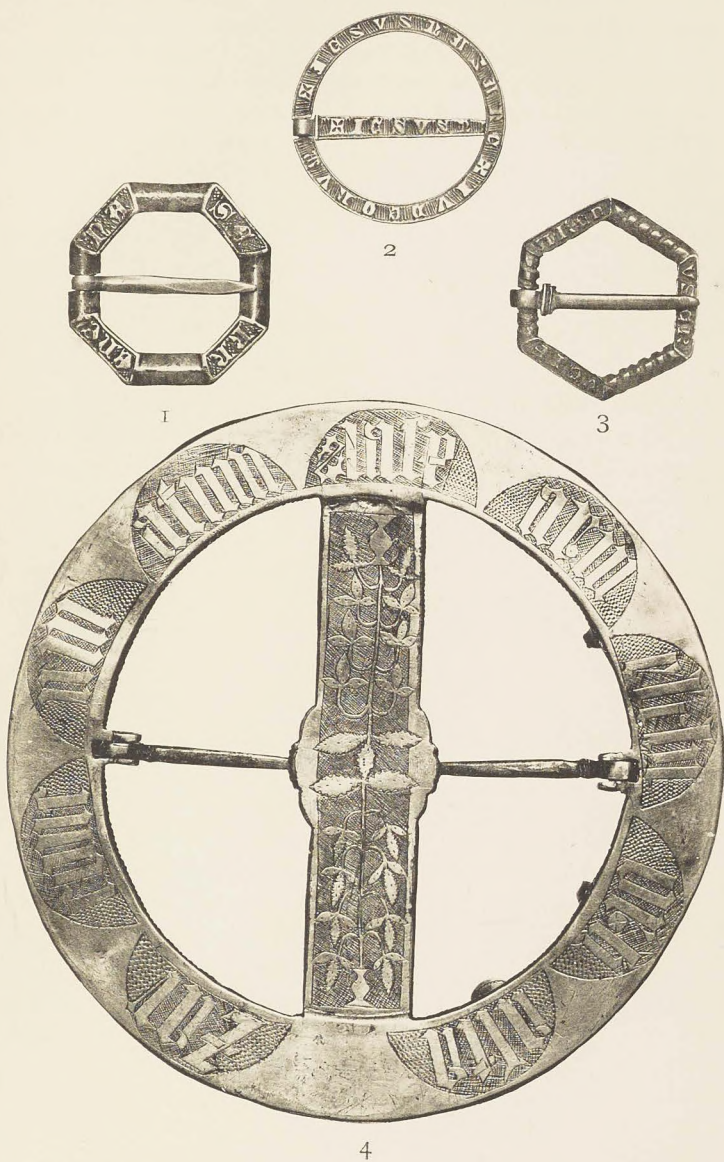
² It is also inscribed on the back with the first verse of the gospel according to St. John.

³ chap. 10.

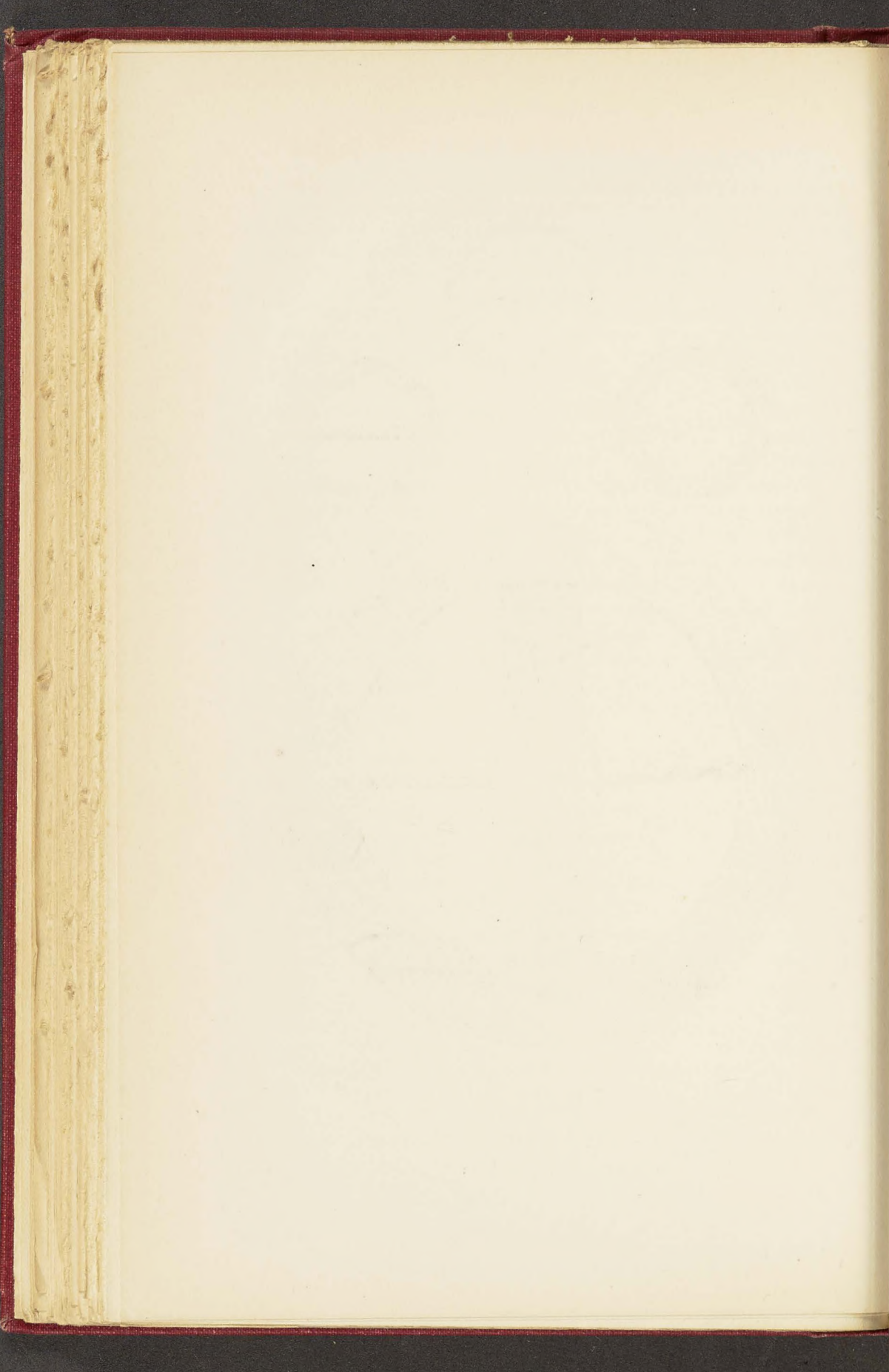
⁴ *Discoverie of Witchcraft*, 1584, p. 233.

⁵ Dalton, *Cat. of Finger Rings in B. M.*, 877-9, 881-3.

⁶ ed. Arber, from the unique MS. in the British Museum.



II. BROOCHES WITH MAGICAL INSCRIPTIONS



taughte and defende all the world fro that grete hurte and dammage. Nowe the pepulle and folke myght be sewre and safe fro the fallyng of soden dethe. Trewly and verily and the crysten pepulle wolde wryte dayly on her forhedys and aboute the placys of her herte wyth her fynger or in any other wyse. these .ii. wordys that conteyneth the mysterye of the helthe and salvacyon of mankynde that ys to wytte and to say Ihesus Nazarenus wythouten dowte the trewe pepulle of owre sauuyr ihesu cryste schuld be harmeles and preserued fro suche a grete peryll and hurte.'

The phrase appears on sepulchral monuments,¹ and on many brooches of the fourteenth and fifteenth centuries, for the most part of Scottish origin.²

Another magical formula is the Letters of St. Agatha, commonly to be found on church bells on account of its use against fire and lightning.³ Sir Robert Witt in 1917 presented to the British Museum a fourteenth-century gold Italian ring⁴ set with a nicolo. Round this is an inscription in reverse for sealing, giving the owner's name ✠ ANULO : PIRRELLU : PISANO : while on the hoop is the epitaph said to have been engraved by divine hands on a stone tablet in the tomb of St. Agatha, patron saint of Catania : ✠ MENTEM ✠ SANTAM ✠ SPONTANEUM ✠ HONOREM ✠ DEO ✠ PATRIA ✠ LIBER.

Several other inscriptions are found on jewels which are definitely religious in character, but since they are usually in the form of a prayer, the impulse to perpetuate the prayer which led to their employment upon jewels brings them into the category of magic. Several buckled-garter rings exist⁵ inscribed *Mater dei memento mei*, and a fourteenth-century example set with green porphyry in the Victoria and Albert Museum has the inscription : *God help hir Maria*. Five purse mounts are known inscribed with the Angelic Salutation.

¹ Gough, *Sepulchral Monuments*, i, pt. I.

² *Proc. Soc. Ant. of Scotland*, 1892-3, xxvii, p. 488. (Found with coins of Edward I, II, and III of England, Alexander III of Scotland, and of John Balliol.)

³ It is also to be found on tiles in Malvern Priory and other churches. See *Proc. Soc. Ant. Lond.*, March 8, 1917.

⁴ G. F. Hill, *loc. cit.*

⁵ B. M. 696-9.

The antiquary Francis Douce possessed one found at Selborne inscribed AVE MARIA GACIA PLE · A · DOMINU TECUM · IPS · W, and described another with the legend V · MA · GRATIA TUA MEMENTO NOSTRI.¹ The Victoria and Albert Museum possesses a fragment of a purse mount² like the first inscribed AVE MA GRA PLENA · DOMINUS TECUM with IHS and $\overset{A}{M}$ on either side of the central ornament. Another similarly inscribed was once found at Reculver.³ A fifth, found in the moat of Binham Abbey,⁴ has, inlaid in silver, on the front the Angelic Salutation preceded by the words O DOMINE CRIZRE and on the back the names of St. Mary and St. Barbara, followed by *Qi non habet pecunium non dabit*.⁵

The name of Jesus was in itself a protection from all evils; Scot, in his *Discoverie of Witchcraft*, writes: ⁶ 'Leonard Vairus writeth, *De veris piis, et sanctis amuletis fascinum atque omnia veneficia destruentibus*, wherein he speciallie commendeth the name of Jesus to be worne.' Further power was attributed to the 'names of God' or titles by which He was known; Bishop Optatus stated that ΙΧΘΥΣ 'in uno nomine per singulas literas turbam sanctorum nominum continet'. A late tenth-century brooch found at Canterbury encloses a silver medal in the style of Edgar's coinage, with the inscription 'nomine Domini'.⁷

Scot⁸ gives a charm taken from 'the Houres of our Ladie, after the use of the Church of Yorke, printed 1516', beginning with thirty-eight names of God, and proceeding: 'Ista

¹ 'Observations on a piece of Antiquity found at Selborne in Hampshire,' *Archaeologia*, xvii, 1814, p. 115.

² M. 145, 1915.

³ Gardner, *History of Dunwich*, p. 97, where it is described as part of a Roman standard of the time of Constantius.

⁴ *Reliquary*, ix, 1903, p. 217; in September 1917 lent to the Victoria and Albert Museum by Arthur Legge, Esq.

⁵ Another was found in making a grave near Yarm. Other specimens are in the British Museum and the Museums of Liverpool and Ipswich. *Reliquary*, loc. cit.

⁶ 1584 ed, p. 238.

⁷ *Victoria County History of Kent*, i. fig. 27.

⁸ *Op. cit.*, p. 236.



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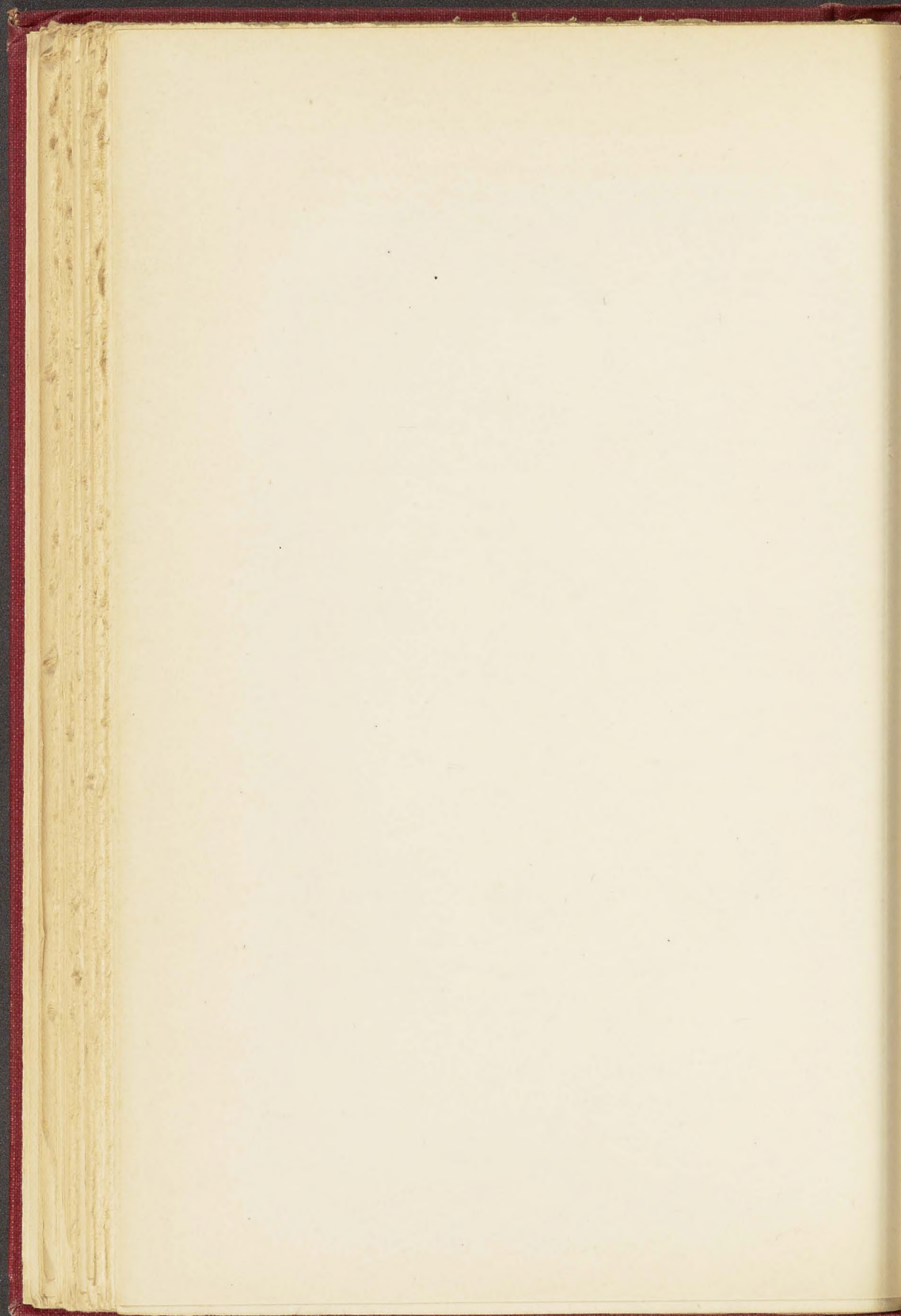


8



9

III. RINGS WITH MAGICAL INSCRIPTIONS



nomina me protegant ab omni adversitate corporis et animae, plene liberent', concluding with the names of the Three Kings, the twelve apostles, and the four evangelists. He also gives

'a copie of the holie writing, that was brought downe from heauen by an angell to S. *Leo* pope of *Rome*; & he did bid him take it to King *Charles*, when he went to the battel at *Ronceuall*. And the angell said, that what man or woman beareth this writing about them with good deuotion, & saith euerie daie three *Paternosters*, three *Aues* & one *Creede*, shall not that daye be ouercome of his enimies, either bodilie or ghostlie, neither shalbe robbed, nor slaine of theeues, pestilence, thunder, or lightening; neither shall be hurt with fier or water, nor combred with spirits, neither shall haue displeasure of lords or ladies; he shall not be condemned with false witnesse, nor taken with fairies, or anie maner of axes, nor yet with the falling euill. Also, if a woman be in trauell, laie this writing upon her bellie & she shall haue easie deliuerance, & the child right shape & christendome, & the mother purification of holy Church, & all through vertue of these holie names of Jesus Christ following: ✠ Iesus ✠ Christus ✠ Messias ✠ Soter ✠ Emmanuel ✠ Sabbaoth ✠ Adonai ✠ Unigenitus ✠ Maiestas ✠ Paracletus ✠ Saluator noster ✠ Agiros iskiros ✠ Agios ✠ Adanatos ✠ Gasper ✠ Melchior ✠ Balthasar ✠ Matthaeus ✠ Marcus ✠ Lucas ✠ Iohannes.'

The Protestant Scot adds a marginal note: 'These effects are too good to be true in such a patched peece of poperie.' Thiers, in his *Traité des Superstitions*,¹ quotes the *Encheiridion Manuale Precationum*² as recommending the use of the words *Authos*, *Anostro*, *Noxio*, *Bay*, *Gloy*, *Apon*:

'Haec sunt nomina omnipotentis Domini Nostri Iesu Christi quae extracta sunt ex aliis eiusdem nominibus. Quisquis super se portaverit, sciat se omne negotium suum habiturum esse, nec unquam fieri posse ut prodicione capiatur. Item si collo appensa ab aliquo portabuntur, ille ab omnibus diligetur.'

Various jewels are known inscribed with the Divine Name or its initials. John of Gaunt inherited from his mother 'un

¹ 1679, cap. xxvi, p. 277.

² A work I have been unable to identify at the Bodleian or British Museum Libraries.

fermaile d'or del viele manere, et escriptz les nons de Dieu en chescun part d'ycelle fermaile'.¹

The effigy of Sir Richard de Willoughby, Chief Justice of the King's Bench under Edward III, in Willoughby Church, Nottinghamshire, wears a girdle pendant inscribed IHC; and that of a lady of the Basset family (c. 1400) in Atherington Church, Devon, has a narrow coronal of linked plaques each with the letter M, probably for Maria.² The Roach Smith Collection included buckles inscribed IHC, IHS, and AVE M.³ A ring found at Garbestone, near Norwich,⁴ had the inscription *Ihesus* followed by four, three, and two SS; and the effigy of John Gower in St. Saviour's Church, Southwark,⁵ has a coronet with *Merci Ihu* twice repeated. Similarly the crowns of the Kings of Arms are still by a rare survival inscribed in blazonry and real life *Miserere mei Deus*.⁶

Sir John Evans had a collection of circular and octagonal plaques of the late fifteenth century, with effigies of saints and an invocation *Ora pro nobis*: St. Andrew, St. Barbara, and St. Nicholas were thus represented. Like the more usual 'pilgrim's sign' without inscription, they were probably both religious and prophylactic in intention.⁷

Thomas Aquinas considered the question 'Utrum suspendere divina verba ad collum sit illicitum?'⁸ and decided that it was only permissible if no evil spirits were invoked in the talisman, if the legend contained no incomprehensible words, if there were no deceit and no other agency believed in than the power of God, and if no other character was used than the sign of the Cross, and no faith was placed in the manner in which the talisman was inscribed. We have seen how little the inscribed jewels of the Middle Ages conformed to these rules, and how far, even according to the standards of their age, they were affected by magical beliefs.

¹ Armitage Smith, *John of Gaunt*, Appendix, p. 427.

² Stothard, *Monumental Effigies*, p. 77.

³ Roach Smith, *Collectanea Antiqua*, iv, p. 103.

⁴ *Proc. Soc. Ants. Lond.*, Series iv, p. 175.

⁵ Gough, *Sepulchral Monuments*, ii. 2, p. 24.

⁶ Fox Davies, *Art of Heraldry*, p. 18.

⁷ See *Proc. Soc. Ants. Lond.* xxii, 1908, p. 10.

⁸ ii. 2, 9. 96, a. 4; Thiers, *Traité des Superstitions*, 1679, cap. xxvi, p. 275.

C

Reliquaries and Jewels decorated with Religious Subjects

It has been shown in the last section that invocations of saints and other religious formulae are found inscribed in charms upon mediaeval jewels in company with such magical phrases as leave no doubt of their degradation into that category. The problem of the classification of reliquary pendants and other jewels of religious motive is more complex ; but here also an element of magic, if not necessarily a preponderating element, may be detected. They take their place as the successors of the classical figures and Cabbalistic symbols of Alexandrian seals. Clement of Alexandria deprecated the use of such 'immoral' subjects, and advised the use of a Christian device : a palm branch, emblem of peace ; a ship in full sail, symbol of the Church ; a dove, of the Spirit ; an anchor, for hope : and such subjects are to be found on early Christian rings.¹ The early devotion of the Church to the symbol of the Cross² led to its use in the decoration of many objects, domestic as well as ecclesiastical. It is reasonable to suppose that it was credited with a certain apotropaic influence, but its use in the earlier centuries of the Dark and Middle Ages appears to have been for the most part either definitely devotional or merely conventional.³ Scot's *Discoverie of Witchcraft* records a charm in which it plays a prominent part :

'The epistle of *St. Saujour*, which Pope *Leo* sent to King *Charles*, saience, that whosoever carrieth the same about him,

¹ See C. D. Fortnum, 'On some Finger Rings of the Early Christian Period,' *Arch. Journ.*, xxvi, 1869, p. 137.

² See e.g. Tertullian, *de Corona Militis*: 'Ad omnem progressum atque promotum, ad omnem aditum et exitum, ad vestitum, ad calciatum, ad lavacrum, ad mensas, ad lumina, ad cubilia, ad sedilia, quacunq[ue] nos conservatio exercet, frontem crucis signaculo terimus.'

³ At the same time it should be recorded that Anglo-Saxon cross pendants are numerous : they have been found at Kingston and Charltham Down, Kent ; Desborough, Northants ; Winster Moor, Derbyshire ; Uncleby, Yorks. ; Silbertswold, Norfolk, and in Suffolk. See Baldwin Brown, *Arts in Early England*, iii, p. 450.

or in what daie so euer he shall read it, or shall see it, he shall not be killed with anie iron toole, nor be burned with fier, nor be drowned with water, neither anie euill man or other creature maie hurt him. The crosse of Christ is a wonderfull defense ✠ the crosse of Christ be alwaies with me ✠ the crosse is it which I doo always worship ✠ the crosse of Christ is true health ✠ the crosse of Christ dooth lose the bands of death ✠ the crosse of Christ is the truth and the waie ✠ I take my journey upon the crosse of the Lord ✠ the crosse of Christ beateth downe euerie euill ✠ the crosse of Christ giueth all good things ✠ the crosse of Christ taketh awaie paine everlasting ✠ the crosse of Christ saue me ✠ O Crosse of Christ be upon me, before me, and behind me ✠ because the ancient enimie cannot abide the sight of thee ✠ the crosse of Christ saue me, Keepe me, gouerne me, direct me ✠ *Thomas* bearing this note of thy diuine maiestie ✠ *Alpha* ✠ *Omega* first ✠ & last ✠ midst ✠ & end ✠ beginning ✠ & first begotten ✠ wisdom ✠ & vertue ✠.

A form of cross that from its use as a consecration cross in the early church acquired a more definitely apotropaic significance is the Tau cross, which some authorities derive from the Egyptian *crux ansata*. The description of the elect in the Vulgate¹ characterizes them as having 'signa Thau super frontes', and it is in reminiscence of this that the sepulchral slab of the priest Thomas Talbot in Southwell Cathedral bears the inscription *Expectans resurrectionem mortuorum sub signo Thau*. Another derivation of the magical use of the letter is given in an old English charm: 'Write this along the arms for convulsions or against a dwarf, T for Trinity & Alpha & Omega.'² Pendants in its shape do not seem to be met with till the end of the fifteenth century, but become common in the first half of the sixteenth century.

The expansion of the cult of relics, particularly in the thirteenth century, and the consequent growth of belief in their wonder-working powers, led to the development of a jewel of another kind. Though the cult was doubtless devotional in origin, superstition gradually enhanced the value attributed to the relic *per se*, until it came to be regarded as

¹ Ezekiel ix. 4.

² O. Cockayne, *Leechdoms, Wort Cunning, and Starcraft in Early England* (Rolls Series), vol. iii, p. 39.

an object of miraculous power, in a sense apart from the spiritual power of the saint from whom its devotional importance was derived. This stage is marked by a desire to wear the relic instead of exposing it for veneration; it is a parallel stage to that marked by the inscription of a prayer as a talisman. The *Summa Angelica*¹ declares that relics should not be worn suspended from the neck; but Thomas Aquinas upheld the orthodoxy of the practice, and his opinion was followed by most later theologians.

The practice may be illustrated from many French and English inventories of the thirteenth, fourteenth, and fifteenth centuries. The French reliquary pendants were usually made to contain several relics; the 1372 inventory of the jewels of Queen Jeanne d'Evreux mentions 'Une boitelette d'or a mettre reliques armoïée des armes de France' and 'Une pomme d'argent qui pendoit au costier ma dicte dame, en laquelle il a reliques et fu à la royne de Navarre sa mère que Diex absoille'.² The French royal accounts for 1390 include a payment 'A Jehan du Vivier, orfèvre et varlet de chambre du Roy N. S., pour avoir fait et forgié un petit reliquaire d'or pendant a une chayenne d'or, ouquel a de la vraye croix de Rodes et de plusieurs autres reliques pour mettre au col du dit seigneur'.³ and the 1416 inventory of the Duke of Berry includes several such pendants—one given to him by Charles de Bourbon, one set with crosses of rubies and diamonds, and one made cross-wise of the wood of St. Andrew's cross. An exquisite French reliquary pendant of about 1300 containing a thorn from the Crown of Thorns was given by Mr. George Salting to the British Museum in 1902: it is set outside with two bean-shaped amethysts, and is enamelled within with the Crucifixion and scenes from the Passion.⁴ A fine English example is that of about 1470 in the British Museum, found on Reculver Beach, formed of two circular plaques decorated with the figures of St. John Baptist and St. Catherine, so joined

¹ Quoted Thiers, *Traité des Superstitions*, 1679, p. 27 a.

² Laborde, *op. cit.*, p. 477, s. v. *Reliquaires*.

³ *Ibid.*

⁴ Charles Hercules Read, *A Tribute and a Record*, Plate XV.

with a heavy twisted rim as to leave a space for a relic between them—a jewel comparable with the ‘relyke that hangeth about my necke wt. ij ymage’ recorded in the will of Nicholas Talbot (d. 1501).¹ A kind of jewel well represented in English inventories is the ring set with a relic; Philippa Countess of March (d. 1381) bequeathed to her son Edmund a gold ring set with a piece of the True Cross, inscribed *In nomine Patris et Filii et Spiritus Sancti Amen*; ² Elizabeth Lady Fitz-Hugh in 1427 bequeathed to her son ‘a ring with a relic of St. Peter’s finger’, and the 1520 inventory of Lincoln Cathedral includes among the jewels dedicated at the shrine of St. Hugh a ring inscribed *Ecce Lignum*, doubtless set with a relic of the Cross.

A further kind of religious jewel is that decorated with representations of Our Lord and the Saints.³ That in some instances these representations had a magical significance is proved by the appearance of figures of the Three Kings, whose names have been shown to be used magically: the will of Hawise Aske, for instance, drawn up in 1451, mentions a belt ornamented with the figures of the Three Kings,⁴ and that of Dame Elizabeth Brown (d. 1467) ‘A tablet with the Salutation of Our Lady & the iij Kingis of Collayn’.⁵ Finally, the description drawn up in the time of Henry VIII of the ‘Imperiall Crowne of this Realme’⁶ records that its cresting of crosses and fleurs de lys was further decorated with images of St. George, Patron of England; the Virgin and Child; and the Three Kings. Occasionally a sacred image is recorded formed of some substance to which magical properties were ascribed; the Duke of Burgundy, for instance, owned in 1467 ‘Ung petit rondelet d’escaille de lincorne taille a l’ymaige Nostre Dame qui tient son enfant’.⁷

Cramp-rings bestowed by the king and in some sense deriving their powers from him form one of the most interesting

¹ Tymms, *Bury Wills and Inventories*, p. 88. ² *Testamenta Vetusta*.

³ See p. 132.

⁴ *Arch. Journ.*, lxvi, 1909, p. 100.

⁵ *Paston Letters*, ed. Gairdner, iii, p. 464.

⁶ Rymer, *Foedera*, xvi, p. 643.

⁷ Laborde, *op. cit.*, p. 362, s. v. *Licorne*.

classes of English magical jewels.¹ Their origin, like that of the cognate practice of touching for the King's Evil, is obscure. Traditionally their healing powers were derived from the ring of Edward the Confessor, the story of which is best told in Caxton's *Golden Legend*. St. Edward's ring was buried with him at Westminster, but after his translation in 1163 was deposited in the Treasury of the Abbey. Miraculous powers were ascribed to it, though it is not certain if it were applied for the cure of cramp and the falling sickness. By the time of Edward II records show that the Good Friday offering of money made by the king was made into rings to be used against these maladies. The last chapter of the Constitutions of his Household² directs: 'Item. Le Roi doit offrir de certain le jour de grant vendredi a crouce vs. queux il est acustomez recevoir devers lui a la mene le chapelein affair ent anulx a donner pur medicine az divers gentz.' These rings the king rubbed between his hands while prayers were repeated, to impart to them that virtue his hands had received from the holy oil at his coronation. The ceremony is described at some length in a sixteenth-century manuscript at the College of Arms³ and in the Venetian Calendar under Mary I.⁴

I do not know of any extant ring that can be identified as one of these, nor is any especial characteristic of their form recorded. The cramp-rings recorded in inventories are of various kinds, and it is often uncertain whether their powers were considered to be derived from a royal blessing or not. John Baret of Bury St. Edmunds, for instance, in his will of 1463,⁵ bequeathed to Lady Walgrave 'a rowund ring of the

¹ See Crawford, 'The Blessing of Cramp-rings,' in *Studies in the History and Methods of Science*, ed. C. Singer, 1917, p. 166; Helen Farquhar, 'Royal Charities: Pt. i, Angels as Healing-pieces for the King's Evil,' in *British Numismatic Journal*, xii, 1916, p. 39.

² Anstis, *History of the Most Noble Order of the Garter*. Quoted Crawford, *op. cit.*, p. 167.

³ M. 6. Farquhar, *op. cit.*, p. 29, note 6.

⁴ Burnet, *History of the Reformation*, ed. 1829, ii, pt. ii, p. 414, gives the Latin service.

⁵ Tymms, *Bury Wills and Inventories*, p. 41.

Kynges silver', and to Thomas Brews 'my crampe-ring with blak innamel and a part silver and gilt'.

These royal cramp-rings may be considered to fall into the half-religious category of magical jewels, since their virtue was derived from the Holy Oil of coronation, and their material from the royal offering. Another class of magical jewels deriving their virtues from royal power, this time in conjunction with the image of a saint, are the 'touching-pieces' given by the king as amulets to those he touched for the King's Evil. There is no certain evidence of their use before the reign of Henry VII,¹ but from that time onwards the king personally hung the coin 'about the neck' of the sick person that he might wear it 'untill he be full whole'. The use of the figure of St. Michael, who was considered to have power over this malady, upon the angels of Edward IV, Henry VI, Edward V, and Richard III, points to their use as touching-pieces,² and Sir John Evans was of opinion that the annulet on the angels of Henry VIII was not there as a mint mark but as an indication of where the coin should be pierced for suspension.³

The attribution to certain saints of power over particular diseases, and the cult of patron saints, are sources from which many jewels may have been accredited with miraculous virtue. The evidence is strongest for the fifteenth century. At that date St. Christopher was held in particular veneration in England: and from the belief

Christopheri sancti speciem quicumque tuetur
Ille nunquam de nullo languore tenetur

many ornaments were made, decorated with his image. Several fifteenth-century girdle pendants so decorated are known.⁴ A ring from the Fortnum Collection in the Ashmolean⁵ is engraved with his figure, and a fine silver gilt

¹ Beckett, *A Free and Impartial Enquiry into the Antiquity and Efficacy of touching for the Cure of the King's Evil*, 1722, p. 51.

² Farquhar, *op. cit.*, p. 31.

³ 'On a Hoard of English Coins found near St. Albans,' in *Numismatic Chronicle*, xii, New Series, pp. 186-98.

⁴ Roach Smith, *Collectanea Antiqua*, iv, p. 103.

⁵ No. 586.

brooch from Kingston-on-Thames in the British Museum is in the form of his image. Chaucer's Yeoman, it will be remembered, had

'a crystofre on his brest of silver shene'.

St. Barbara gave protection from sudden death, and her figure may be found on several mediaeval rings.¹ A substratum of magical belief, indeed, probably underlies the whole class of 'iconographic' rings decorated with figures of saints and characteristic of the fifteenth century, as well as the ornaments known as 'Pilgrim's Signs' or *signacula*.

The use of relics and of religious symbols and figures for magical purposes is evident, though it is not so obvious as the use of religious formulae in magical inscriptions. It is probable, indeed, that such use was only unconsciously magical; the practice never fell into such disrepute as to be considered tainted until it was condemned by the Protestant reformers along with the 'Popish practices' of the Roman Church.

¹ e.g. Fortnum Collection, No. 584. See Sir John Evans, in *Proc. Soc. Ants. Lond.*, second series, xxii, 1908, p. 102.

VII

THE RENAISSANCE: LAPIDARIES OF THE SIXTEENTH AND SEVENTEENTH CENTURIES

A

Lapidaries of Precious Stones

THE Renaissance expanded but did not change men's interests. The claim of the Church to the control of knowledge was no longer unchallenged; new provinces were added to man's intellectual domain; but the ground covered by the Seven Arts and the *Summae* was neither relinquished, nor allowed to lie fallow. The lapidaries of the Middle Ages were more directly derived from classical sources than almost any other type of mediaeval literature, and as a consequence lapidaries were little affected by the increased knowledge of the classics attained by the scholars of the earlier Renaissance: it is not until the end of the sixteenth century that their content is affected by the critical spirit cultivated by a more liberal education.

The first lapidary of the Renaissance is that included in the *de Vita Coelitus Comparanda* of Marsilio Ficino (1433-99).¹ He attributes the mysterious power of gems to the influences of the stars: 'Nam quum proprietates eius modi, earumque effectus elementari virtute constare non possint, consequens est a vita spirituque mundi per ipsos Stellarum radios singulariter proficisci, ideoque per eas spiritum affici, quamplurimum atque quamprimum, coelestibusque influxibus vehementer exponi.' Further, he attributes the particular effects of each stone to the influence of the planets affecting it; 'Corallus et chalcidonium adversum atrae bilis illusiones, Iovis praecipue Venerisque virtute,' and similarly with the rest.

¹ bk. iii, cap. xii.

The next Renaissance lapidary—the *Speculum Lapidum Clarissimi Artium et Medicine Doctoris Camilli Leonardi Pisaurensis*, published in 1502 with a dedication to Cesare Borgia, is on a larger scale. The first book is purely mineralogical: it discusses successively the matter, cause, form, place of generation, accidents, degree of perspicuity, hardness, and gravity of stones, and gives directions for detecting counterfeit gems. The second book is ‘De virtutibus lapidum et quo eis virtus insit ac de nominibus omnium lapidum et de eorum virtutibus’. It starts with a firm assertion of the author’s belief in the virtues of gems: a few learned men, he says, have said that no virtue pertains to precious stones, ‘quod falsum esse arbitramur istosque dimittamus cum totaliter a veritate discrepent’. He equally scorns those who ‘frivolo modo’ state that stones only have elemental qualities of heat and cold, hardness and softness, and deny them such qualities as the power to resist poison or to confer victory. The tradition that they have such powers, backed as it is by such weighty authorities as Solomon, is certainly to be believed. They give favour with princes, resist fire, make their wearer beloved, endow him with wisdom, make him invisible at will, divert thunderbolts, repel poison, increase riches, foster love between husband and wife, calm tempests, and cure disease. A stone may possess one or many virtues, and these do not depend upon its beauty for their force. Their source has been the subject of much discussion; but Hermes, Ptholomeus, and many other astronomers have made it plain ‘quod virtutes lapidum a stellis planetis ac constellationibus sunt mediante puritate sue complexionis’. Such a theory, however, must be somewhat modified in the light of the work of Albertus Magnus; Camillus Leonardus agrees with him in the Platonic view that stones receive virtues ‘ab ipsa specie mediante forma substantiale ipsius lapidis facta in convenienti loco ac a proportionata materia quae convenit pro esse talis lapidis’. This theorizing is followed¹ by an alphabetically arranged lapidary of some thirty stones. The qualities attributed to them are for the most part magical; except for their use against poison their

¹ p. xxi b.

medicinal properties are rarely recorded. The virtues ascribed to them and the methods of application are for the most part those made familiar by the lapidaries of the Middle Ages. The first section, that *de Adamante*, is typical: 'Veneficis artibus resistit. Vanos metus expellit: iurgia ac rixas vincere facit, Lunaticis ac repletis daemone prodest; ligatus sinistro lacerto hostes vincere facit; indomitas bestias humiliat; incursionibus fantasmatum et incuborum subuenit; in agendis rebus gestantem audacem virtuosumque efficit.' A few of the usual animal-stones—*aetites*, *alectorias*, *chelidonium*, *dracontitis* and toad-stone—are included. This lapidary of precious stones is followed by one of engraved gems.¹

The third book of the alchemical treatise of Christopher Entzelt, *de Re Metallica*, published at Frankfurt in 1551, is 'de lapidibus et gemmis aliisque rebus preciosis'. Much of the information here given is derived from Pliny, and some of the more marvellous properties of gems are related with a certain incredulity. A considerable number of stones taken from fishes, birds, and snakes are described. Giovanni Baptista Porta, then twenty years of age, published his *de Miraculis Rerum Naturalium Libri IIII* in 1560. He includes the magical virtues of gems in his fourth book, beginning² by considering their medicinal use as amulets, affecting the part of the body to which they are bound by their natural and celestial virtues, through the faith of the wearer in their power. In the twenty-first chapter the sigils of stones are considered, and in the twenty-second their virtues are discussed and enumerated. His list follows tradition, and is only interesting as reaffirming the planetary influence in gems: 'Alectorias enim potestatem solarem habet, unde gestantes invictos reddit, sic chelidonium ex hirundinibus erutus curat melancholiam, et amabilem facit, cum iouialis sit, et in caeteris idem observabis.'

The next lapidary to be published was that of François Ruet.³ Like other writers of his time he gives a statement of the celestial origin of the virtues of stones:⁴ 'Manifestum esse

¹ See p. 156.

² cap. xx, p. 129.

³ *de Gemmis Aliquot . . .*, authore Francisco Rueo, Doctore Medico Insulano, Tiguri 1566.

⁴ cap. iii, p. 23.

puto . . . quod et philosophis diligenter probatum receptumque invenio ; quod rebus supernis vis quaedam insita est vehemens, quae maxima ex parte cum inferioribus convenit ; indeque sympathia quaedam et ceu consensus emergit, quo animantium motus tacitique concentus coelicis corporibus . . . concordare videntur.' The second book begins with a consideration of the Heavenly Jerusalem. Galen and Pliny are quoted as authority for the properties of jasper, and Thetel's sigils for the stone are recorded. After the 'sacred' stones the pearl, carbuncle, diamond, aetites, alectorias, coral, cornelian, turquoise, lapis lazuli, chelidonium, magnet, haematite, and amber are described. The medicinal virtues of each gem are given as well as its magical effects on the mind and fortunes of the wearer but full as the accounts are, except for a few explicable confusions they contain nothing for which authority could not be cited from the lapidaries of the Middle Ages.

Another such lapidary, conforming so closely to the accepted tradition as to offer no unusual features, is given after a book of charms in a sixteenth-century manuscript in the British Museum.¹ It is headed 'Evax', but is not directly translated from Marbode ; it bears no name, but the signature 'Gulielmus Burmanus' on one of its leaves² may be in the same hand. A manuscript work written by Giovanni Cardamosto in the second half of the century is also preserved in the British Museum.³ It describes plants, foods, poisons, and their remedies, and was written 'in tantj volumj non con poca fatica, vigilie et affamj . . . a laude et honore dello omnipotente Idio el quale sana ognj languore'. The section on precious stones⁴ ends abruptly with crystal, and appears to be unfinished. The description of diamond gives an account of its powers against poison, and as a poison :⁵ 'cura li venenj malej e veneno che mangiata overo bevita, fa morire le extremite apocho apocho e va moriendo lomo con pocho termine.' To agate, alectorias, and other stones are ascribed their tradi-

¹ Sloane 2628.

² fol. 3.

³ Harleian 3736.

⁴ fol. 157 v.

⁵ It will be remembered that diamond powder was thought to have been employed in the Overbury case.

tional virtues. Another Italian lapidary of the traditional type is given in Sloane MS. 784: 'Raccolta de curiosi discorsi sopra le virtù de diverse pietre preciose cauata da antiqui manuscritti, e riddotta in questa forma da me Andrea Vendramine nella sua istessa lingua.' The rhymed lapidaries of the Renaissance are few in number; the most interesting is the *Blason de la Marguerite et autres pierres précieuses* of Jean de la Taille, published in Paris in 1574.¹

Je chante des pierres d'élite
 La force et valeur non petite,
 Dont l'une a la prospérité
 Aide l'autre aux longueurs de la vie,
 L'une à l'amour, à la santé,
 L'autre aux biens de fortune amie;
 Il n'est pierre (oultre sa beauté)
 Qui n'ait quelque propriété.

The diamond, he says, drives away the terror that comes by night, the emerald strengthens the memory and brings joy, as do the ruby and the sapphire.

In 1582 'Batman uppon Bartholeme, his Booke *De Proprietatibus Rerum*' was published in England (by Thomas East, Paul's Wharf), 'with such additions as are requisite, unto every severall Booke: Taken forth of the most approved Authors, the like heretofore not translated in English. Profitable for all Estates, as well for the benefite of the Mind as the Bodie.' This, the first printed English book containing a lapidary, doubtless did much to popularize the lore of precious stones. But Batman's additions to the sixteenth book, *de Lapidibus Preciosis*, are slight; he tells us that the virtues of the diamond 'are to resist poyson and witchecraft; to put away feare, to give victorie in contention, to helpe them that be lunatike or phrantike'; and adds to an account of the chalcedony quoting Isidore and Dioscorides the remark: 'Mans coniecture is farre from the true operation of hidden properties.'

Garcia de Orta's *Aromatum et Simplicium . . . apud Indos nascentium historia*, published at Antwerp in 1584,

¹ Quoted Havard, *Histoire de l'Orfèvrerie française*, p. 362.

though chiefly concerned with the enumeration of the places where each stone is found, describes a few of their medicinal virtues. More important is the treatise *de Gemmis et Coloribus* of Jerome Cardan, published three years later.¹ He describes himself in his *de Vita Propria* as philosophical, inventive, intolerant of authority, an enthusiast for miracles, a magician, and a mystic; and he shews himself to possess some at least of these qualities in his works. Gems, he says,² have powers which, unlike those of plants, remain undiminished by time:

‘Quare haud tutum est lapides gerere incognitos, et adsidue secum ferre; . . . gignunt enim in animis nostris varios effectus, contumaciae, timoris, auariciae, odii, inuidiae, petulantiae, tristitiae, irae, quorum medio homines evertuntur . . . Facile intelliges, vitae nostrae cursum fortunamque ferme totam ex moribus nostris et affectibus pendere: quare etiam magnum afferre posse detrimentum aut auxilium, gestamen lapidum atque gemmarum.’

There follows an account of twenty-three stones. The diamond is said to make its wearer unhappy, since its brilliance has the same irritating effect upon the soul that an excess of sunlight has upon the eyes; it makes the wearer intrepid; but since nothing leads to greater security than prudence and fearfulness, it is better to be without it. Selenite has drying properties, drives away sleep, and increases care, though fair to behold; carbuncle, though it repels sadness, brings sleeplessness, ‘ut nil sit ex quaque parte beatum’. It is equally earthy and fiery, and as much as it strengthens the heart it harms the brain. Onyx, said to give dreadful dreams, he has found to incite visions, but not of a terrible character; and to all the other gems he discusses he attributes favourable qualities. Of the jasper’s powers of stanching blood and strengthening the pulse he is confident, though less certain of its more marvellous qualities; the emerald he has proved by experience to increase riches; and sapphire he similarly knows to cure diseases of the skin. The

¹ Basle, per Sebastianum Henric petri, 1585.

² *de Gemmis et Coloribus*, p. 318.

virtues of the topaz he has also proved: it cures madness and increases prudence and wisdom. He gives the usual descriptions of the chelidonium, aetites, and toad-stone, though he does not consider that the latter is of any great use against poison. He also describes the *glotis*, which seems identical with the 'serpent's tongue':

'linguae forma et magnitudine, sed aliquanto brevior; colore ferrugineo, cum venulis quibusdam rubris ac sanguineis; in manu detentus, lentum quendam humorem mittit; et videtur ingenium acuere, industriamque augere. Mollis est; sed qualis qualis sit, vires egregias habere illum verisimile est.'

Peculiar to his lapidary is the description of the *Indus lapis*, a red sapphire:

'Quoniam durus est, multum et cito mutat animi mores. Ob colorem autem ad ambitionem et constantiam, facitque studiosum rerum rariorum et abditarum; et plerumque cum parua utilitate, ut multa talia esse solent; nam rara iucunda, trita autem meliora.'

Andrea Baccio, in his *de Venenis et Antidotis προλεγόμενα*,¹ speaks² of the use as amulets of the bezoar-stone, unicorn's horn, and 'serpent's tongue'. 'Inter lapides et gemmas,' he states,³ 'cum occultas omnes habeant facultates naturae humanae auxiliatrices, Adamas, si gestetur tantum amuletum esse contra venena, et fugare serpentes.' Ophites, sapphire, and emerald have similar properties, and it is from these stones, sard, jacinth, gold, and pearls that the renowned antidote, the electuary of gems, is to be made. He treats of precious stones more fully in his *de Gemmis et Lapidibus preciosis*,⁴ which considers first the 'sacred' stones, then the gold and pearls of the Heavenly City, and then other gems, for which he quotes Pliny as authority. The symbolic element is not lacking from his descriptions; one argument he puts forward for the wearing of gems is that their purity, translucence, and beauty may induce men to lead lives of similarly

¹ Rome, 1586.

² p. 51.

³ p. 60.

⁴ Andreae Baccii Elpidiani Philosophi . . . Frankfurt. Scholia by A. Wolfgang Gabelchover, 1603.

unsullied purity. He has no doubt that the stars which God in His wisdom has set in the heavens have a direct influence upon gems and endue them with supernatural powers; and he further attributes the virtues of each kind of gem to the influence of some particular planet or constellation.¹

‘Et ut infinitas alias influentias praeteream, eandem rationem supradicti Sancti auctores adducunt de Sapphyro, dum rationem reddunt tot virtutum divinarum ipsi insitarum, quod inclinet hominem ad pacem, ad amorem Dei, ad charitatem, eos adiuvet per virtutem ipsi a Ioue infusam: quod virtus Veneris insit Smaragdo; virtus Martis Adamanti, ad efficiendum homines constantissimos. Quod splendor Solis insit auro; Lunaeque Margaritis, qui tam evidens sit, ut variante Luna, ipsae quoque varient et crescant vel decrescant. Quae enim deficiente Luna creantur, parvae et exiles evadunt; quae vero Luna crescente generantur, splendidissimae et magnae efficiuntur.’

The ascriptions of virtue to the various gems follow the usual mediaeval authorities; the scholia of Gabelchover add nothing new, and seem to be based on Ruet's work. The current acceptance at this time of the virtues of gems and of their celestial origin is further shown in the *Medicina Catholica, Seu Mysticum Artis Medicandi Sacrarium* of Robert Fludd.² He states:³ ‘Non est herba aut planta aut lapis aliudve minerale, aut animale inferius, cui non sit stella, quae percutiat illud; ut testantur Hebraeorum Doctores.’

M. Delrio, in his *Disquisitionum Magicarum Libri Sex*, published at Louvain in 1599, equally accepts the current belief in the virtues of amulets, but discredits sigils:

‘Dico primo, Amuleta huius modi quae collo dependent vim nullam obtinent naturalem ratione verborum, characterum, vel figurae, vel constellationis; sed dumtaxat ratione materiae si qua huic antipathiae vel sympathiae vis naturalis insit. Haec conclusio est catholicorum omnium, et etiam gentilium.’

A manuscript volume in the British Museum⁴ contains

‘The Goulden Arte or The Jewell house of Gemes, wherein is showed the generatione of gould and silver in

¹ cap. ii, p. 25.

² Frankfurt, 1629.

³ p. 93.

⁴ Stowe 1071.

there mines and the reducinge them to perfect mettles wt. ther valew in quoyne and estimatione for other uses, the generatione and fishinge for pearle, the knowledge of all pretious stonnes wt. there vallewes and vertues wt. other things of most estimatione, as also the tryall of trew stones, the makinge of Conterfeit stones, the trew vallew of out Landishe quoynes, the strange kinds of moneyes used in diuers and severall partes of the world wt. the manner of the mintes of diuers and sundrie townes and citties beyond the seas wt. diuers other thinges devided in too severall bookes for the better understandinge thereof, Collected and Gathered together out of diuers and sundry authors by William Heth, Clarke of his Ma^{ties}. Store for the navy at Portesmouth; fo' the good of his Cuntry 1603.'

A transcript of part of this work in Ashmole's hand will be found in Ashmole MS. 1466.¹ Among many other matters it describes the medicinal properties of gold and silver, and gives a fairly complete lapidary.² He begins

'The Lord himselfe being the Creator of (precious stones) best knoweth ther pretious vertues and Althowe we should heare looke no further havinge so good an autore as the Creator of all thinges Yett I hope we Maye wt. out offence Likewise sett downe the opinions of those antient and wise philosophers whom the Lord out of his great mercie and Love indued to excelent wisdom and understanding to deserve the vertues and naturall causes of such his creatures as he had created for the use of man.'

Aristotle is then quoted to prove that precious stones receive their virtue from the planets, and other authors are cited as authorities for the theory that 'the dew proportione of the ellements' and the fineness of their composition also affect their properties. Later³ the question is discussed 'Whence the pretious stonnes receive their operations, how Curious magicians Use them and of their Sealle'. We are told that not only do they receive their virtues from the planets, 'but som tymes the very Images and impressions of the Starres naturally ingrafted in them'; and that otherwise they

¹ fol. 1 a, 2-46, 6-73. It appears to have been written between 1640 and 1650, and only contains the books up to the tables of assay.

² p. 56.

³ fol. 58.

should be engraved with the appointed sigil, and set in rings of the appropriate metal made at a time when the planets concerned are in 'apt proper and friendly aspectes'. In the lapidary that follows most of the stones are ascribed to the planet from which their virtue is derived, and a full account of their virtues, taken for the most part from well-known authorities, is given. The lapidary proper is followed by accounts of the bezoar-stone, unicorn's horn, and ambergris.

A somewhat similar treatise, probably written a few years later, is bound up with some bills of 1662 and 1670 in a manuscript volume¹ in the British Museum. This is clearly the work of a practical jeweller, and gives various tables and other directions for evaluating the weight and price of gems. It is nowhere signed, but on the back of fol. ii is scribbled 'Be it known unto all men by these presents that I George Jennings of the parish of St. Clements Danes in Middlesex', and this may afford a clue to the authorship. The book begins with a paragraph 'Of the originall Nature and vertues of Pretious Stones':

'Off all ye infinitt benefitts and gifts off God and Nature bestowed on man kind gems and stones wch are called pretious doe not Challenge to them selves the meanest place ffore above all other Creatures the exell so much in sinceritie in purity Clearness and Beutie as they are nott only compared to the firmement off the stares but all so doe take ffrom them ther infinite vertues. . . . Stones the are bred off other stones as pearles are off oysters the have goodly vertues and properties whereby wee may wth pleasure observe their consent and agreement with the heavens for If the bee Like the heavens in brightness Clearnes and noe way stained in purity wee may easely conjecture that the Celestiall bodies are prodigall in transfusen and beestowing ther vertues upon them.'

The lapidary follows the usual tradition in the virtues it ascribes to gems, both medicinal and purely magical properties being alike recorded. The cock-stone, eagle-stone, and swallow-stone are duly recorded.

'Chelonites Celontes or Selenites', we are told,² 'is the snayle stone or ye Moone stone itt is of purple cullar and is

¹ Sloane 2539.

² fol 45.

saide too bee ffound in the Body of a snayle in the Indies wch are snailes very greate haueing houses or shells shineing Like pearles called Mother of Pearles, there are Diuers Cullars of these stones as redd white grene and purple are sometimes found in Persia . . .

A full account is given of the toad-stone :¹

‘ Borax or Lapis Bufon is called the Tode Stone, and is a stone taken oute off the heade of a Toade being growing theire butt itt must bee a Toade this is very greate and old and hath Lived Long in hedges or diches or in a fenne off Reeds because it will be many yeares or ever the stone can come to any biggness. this stone . . . is off Cullar eyther white or a Littel darkish Browne or Blacke haveing in the midst of the stone Like unto an Eye beeing of a greenish Cullar. Especially if the stone bee taken from the Toade alive and so is off most vertue off operation. The vertue off this stone is a most present Remedy against all sortes of Poyson ffor iff a man hath taken Poysen Lett him swallow presently this stone and being swallowed itt compasseth the gutts and so expelleth the poysen. The vallew of this stone is not much worth butt acording too the bignes and beauty of itt . . . Butt myself had one wch was black and spotted with redd spotes wch I did sett in a ring off gold off 20/- vallew and I sould it ffor £6. Butt I never since could meete with such another.’

A cure affected by Cardan by means of a chrysolite is quoted, and frequent references are made to ‘my author’—apparently Albertus Magnus. The ‘Cati Oculus, Pledopoly or Catt’s eye’ is described as being held in high estimation in China and India, and there is a section² ‘Of divers severall stones found in the Indies nott yet spoken of with other rare matters ther found worthie to be knowne’. He concludes with accounts of ‘Lack, or hard waxe’, ‘Anyll or Indico’—other instances of Oriental influence—and ambergris.

A shorter and, on the whole, less interesting treatise of the same type is ‘The Storehouse of pretious Stones, discribing the places where they growe, their names, vertues, Coullors and vallews, according as they have beene brought from Merchant to Merchant worthy to be taken notice of’ written by Henry Wastell in 1635.³

¹ fol. 34.

² fol. 106.

³ Bodleian, Rawlinson C. 832.

The *Dispensatory* of Renodaeus, first published in 1608, and issued in a curious English translation by Richard Tomlinson in 1657, includes a good example of the medical lapidary of the time. Nor are medicinal virtues the only ones described; the section 'Of Medicinal and Precious Stones'¹ states that with them 'Kings and Princes do adorn their Crowns, enrich and Illustrate their Fingers, beautifye their Houses, expel Enchantments, cure Diseases, preserve Health, recreate the Eyes, exhilarate the Minde, and drive away sadness therewith.'

The usual virtues are attributed to each of the stones enumerated; cornelian, for instance, 'carried about one, recreates the minde, cohibits sad dreams, expels fear, preserves the carrier from witches and harms . . . and usefully ingredes the confection of the Electuary *de Gemmis*'. The twelfth chapter treats 'Of Amulets, which carried or hanged up, do cure many diseases by an occult virtue'. The views here expressed are more progressive. Amulets are classified in two categories:

'One sort consists solely of Characters and words, another of simple medicaments hanged about the neck, or any other member of the body. Physicians laugh at the former, and reject it as a thing fabulous, delusive, uncertain, and incredulous: for we finde, that neither Physician nor Metaphysician ever spake thereof, unless some Cacodemoniack, that refers them to his Philosophy. . . . Amulets neither take away the cause, the disease, nore symptomes, as those falsely persuade themselves, to whom they have been suspended, being deceived by their persuasion, who worship and invoke Divils; who also imagine, that all things may be done in their name, and by their virtue, without any other cause.'

But the second class of amulets,

'which consist of simple medicaments tyed or suspended, are not altogether disapproved of by Physicians, indeed they often produce salutary effects by an occult property. . . . The gem Selenitis put into a ring, onely by touching the flesh, stayes blood flowing from any part. The green jasper suspended helps the stomach. . . . The Heracleian stone, commonly called the Loadstone, besides its faculty of attracting iron,

¹ 1657 ed., p. 412.

being onely holden in the hand, it easeth the grief of the Gout both in the hands and feet.'

The most important lapidary of the seventeenth century was the *Gemmarum et Lapidum Historia* of Anselmus Boetius de Boot, published at Lyons in 1636. A French translation by André Toll appeared from the press of Jean Antoine Hugueton in 1644, and a third edition, edited by Toll and Johann de Laet, comprising also a text and translation of the treatise of Theophrastus on Stones, was published by Jean Maire in 1647. In this lapidary an attempt is made to arrive at a rational classification of precious stones according to the opposites *parvus—magnus, rarus—frequens, durus—mollis, pulcher—turpis, opacus—diaphanus, integre—non integre, colore—sine colore*. The twenty-fifth chapter of the first book contains a discussion of the existence of virtue in gems. De Boot dismisses the assertions of those who declare that they have no such properties, and goes on to distinguish between elemental powers, those which come from form and matter—such as the attractive power of the magnet—and supernatural qualities depending upon neither form nor matter, but received through celestial influences. The existence of properties of the two former kinds is, he says, self-evident: but the question of the existence of supernatural powers demands more profound speculation. De Boot proves himself a sound thinker by describing as supernatural not only such properties as that of darkening the sun or making the wearer invisible, but also those which 'ab ordinariis naturae instrumentis fieri non possunt'—such as making men rich, eloquent, happy and secure. He admits that precious stones produce effects which challenge wonder and admiration; but says that as products of nature they cannot themselves produce supernatural effects. Any such which may appear to be accomplished through them are not due to them, but to God or to a good or evil spirit subject to him who uses them only as an instrument, 'bonus Dei voluntate, malus Dei permissu'. The assertions of the lapidaries and of popular tradition he thus dismisses:

'Nam gemmarii ut eas caro pretio vendant, miras virtutes, facultates, et effectus illis tribuunt, easque mirum in modum

praedicant, quas dum observant emptores, et sequi, prout promissum fuerat, animadvertunt: etiamsi casu, vel ab alia causa fiant: nihilominus tamen a gemmis, et lapidibus fieri arbitrantur.'

The second book contains a lapidary of some length. Though his critical spirit excludes many of the virtues earlier attributed to gems, some at least survive his criticism. Though he doubts the value of the use of diamond as a test of adultery, he agrees that it is possible that it may repel poison, pestilence, witchcraft, madness, terror, dreams, and evil spirits; it may even give victory, constancy, and serenity, since all these things are within the power of God. He doubts the phosphorescent quality of the carbuncle, but gives Cardan's list of its virtues; he himself had warning of the death of his wife through a ruby's change of colour. He gives an account of the garnet's virtues against melancholy, if worn at the neck; of the jacinth's as an amulet against plague and of the amethyst's against drunkenness and ill fortune. Pearls crushed and administered as a potion are an antidote to many ills; powdered sapphires are good for sore eyes, dysentery, and heart disease, and the stone if pressed upon a bruise or inflammation will heal it. Opal has the virtue of all gems, as it has their colours; but emerald is to be recommended as an amulet above all other stones: worn round the neck or upon the finger it is said to prevent epilepsy, to stanch bleeding, to cure dysentery, to avert panic terror, to repel demons, and to cure the semi-tertian fever. It is further asserted to strengthen the memory and refresh the sight. In spite of these repetitions of familiar superstition, the lapidary of de Boot marks a definite advance towards a rational treatment of the properties of precious stones.

The work of de Boot was carried on and completed by his editor, de Laet, in his mineralogical treatise *de Gemmis*.¹ He gives a fairly full account of the virtues ascribed to the ruby, and concludes: 'Quae omnia vana esse iudico, e magicis traditionibus primum hausta, et postea ab autoritatibus

¹ Lugd. Bat. 1647.

repetita, et temere credita ab iis qui fortasse numquam hanc gemmam tractarunt aut viderant.'

The influence of de Boot is apparent in the work of Thomas Nicols, of Jesus College, Cambridge: *A Lapidary; or, The History of Pretious Stones; with cautions for the undeceiving of all those that deal with Pretious Stones*, published with a dedication 'to the Right Worshipfull the Heads of the *Universitie* of Cambridge' in 1652.¹

De Boot's work marks a definite epoch in the history of lapidaries. After its appearance the books which contain lapidaries of the old superstitious type are for the most part definitely popular and unscientific in character. An extreme example is the so-called '*Secrets of Albertus Magnus, of the vertues of Herbes, Stones, and certaine Beasts*' printed by T. Cotes, and are to be sold by Andrew Kembe, at his shop at St. Margaret's Hill in Southwarke, 1637.' This consists of a series of headings, 'If thou wilt be made invisible', 'If thou wilt provoke sorrow, feare, terrible fantasies and debate' and so on, for each of which the traditional stone is prescribed. This would appear to be derived from the type of mediaeval lapidary represented by that in MS. Bodley 177, fol. 30.²

A short lapidary of a medicinal character, containing nothing unusual, is preserved in a manuscript in the Bodleian;³ at the end it is described as: 'Collected by my father—in his residence in—Persia and ye Indies—Ca 1640—Baynbrigg Buckeridge—1691—e col. di. Joā. Bap. Oxon.,' but it records only the commonest European superstitions.

A further medicinal lapidary is given in the *Aditus Nouus ad Occultas Sympathiae et Antipathiae causas inveniendas* of Sylvester Rattray, a physician of Glasgow, published in that city in 1658.⁴ The virtues it ascribes to stones

¹ A second edition was published in 1659 with the title 'Gemmarius Fidelis, or the Faithful Lapidary, Experimentally describing the richest Treasures of Nature in an Historical Narration of the several Natures, Vertues and Qualities of all Pretious Stones . . . by T. N. of J. C. in Cambridge . . .'

² See p. 70.

³ Bod. 51.

⁴ p. 34.

are nearly all medicinal in character and traditional in derivation.

The alchemists of the seventeenth century did not fail to devote their attention to the properties of gems. The *Prolegomena* to Elias Ashmole's *Theatrum Chemicum Britannicum* of 1652—addressed 'to All Ingeniously Elaborate Students, in the most Divine Mysteries of Hermetique Learning'—mentions

'the Vegitable, Magicall, and Angelical Stones . . . marvelously Subtile, and each of them differing in Operation and nature, because Fitted and Fermented for severall Effects and Purposes. Doubtless Adam, (with the Fathers before the Flood, and since) Abraham, Moses, and Solomon, wrought many wonders by them, yet the utmost of their Vertue they never fully understood; nor indeed any but GOD and the maker of all things in Heaven and earth, blessed for evermore.'

Almost the last traditional lapidary of the Renaissance forms a part of the *Trinum Magicum* published in 1663 under the editorship of Christian Gerlach and Simon Beckenstein.¹ The virtues of jasper, agate, and emerald are enumerated.²

'Itaque nullum dubium est, invisibilem latentemque vim gemmas eiaculari atque euibrare . . . Omnes enim . . . ex terra nascentia sunt signa Magica a Deo concessa, per quorum cognitionem ad veram medicinam, id est, Signatum peruenitur.'

The virtues of the turquoise are recorded as particularly remarkable:

'Turcosia gemma, quoties mutari, atque expallescere, natioque colore destitui conspicitur in gestante vel languesciente vel valetudinario? Sed magis stupendum, quod imminens periculum coloris huius gemmae in fuliginosum vel serenissimi coeli contrarium mutatio, vel etiam maculae alicuius aut fissurae apparentia praesagire dicitur.'

The author, however, while conceding marvellous virtues to gems, states³ 'Plane vanum est, quod quidam putant, effectus gemmarum quarundam provenire vi magica, nec naturales esse'.

¹ See p. 164.

² p. 245.

³ p. 257.

B

Lapidaries of Engraved Gems

The learning of the early Renaissance rejected neither the lapidary of precious stones nor that of engraved gems; it accepted and enriched both traditions, attempting to make their position within the sphere of science more secure by philosophical explanations of the origin of the virtues they described.

Marsilio Ficino (1433-99) was one of the first to consider in the light of the new philosophy 'Quod res naturales atque etiam artificiosae habent uirtutes a stellis occultas, per quas spiritum nostrum stellis eiusdem exponunt.'¹ Not only does he attribute the virtues of precious stones to the influence of the stars, but he also considers how these virtues are to be intensified by the engraving of the appropriate sigil of the stone. These sigils are those made familiar by the mediaeval lapidaries. These are the foundation also of the third book of the *Speculum Lapidum* of Camillus Leonardus (1502). He begins with an apology: 'Rem mihi arduam ac difficilem, princeps illustrissime,² in hac ultima parte nostri libelli sumpsi, nec a multis pertractatam ob maximam eius difficultatem.' The cognate arts of astronomy and magic have, he says, fallen into neglect in late years, but since he is not entirely ignorant of them, and since some information on the subject may be found in the writings of others, he has decided to record what he knows and what he can discover, 'ne tot nobiles res pereant, ac a modernis omnia cognita fuisse appareat'. He goes on to enumerate those who have gained fame as gem-engravers, quoting Thetel as authority for the supremacy of the Jews in that art, 'qui peritissimi astronomicae magicae ac necromanciae scientiae nec minus in sculpturae arte, lapides signarunt'. By these arts they were enabled to ensure that a right relation should exist between the stone and the sigil employed, 'ut simboleitatis ratione virtutes imaginum

¹ *de Vita Coelitus Comparanda*, iii, cap. xii.

² Cesare Borgia.

essent efficaces'. Thebith ben Corath is praised for his explanation of the operation of celestial influences upon talismanic gems, and the leading gem-engravers, niellists, and painters of the early Renaissance are enumerated. A distinction is drawn between natural and artificial images, and the question of the effect of the material in which it is engraved upon the power of the sigil is discussed on astrological grounds. The statement of Albertus Magnus that engraved gems lose their power after a time is rejected, Solomon's opinion being quoted to refute it: '*Nisi lapis fractus fuerit aut figura deleta totaliter uirtus non deperditur.*' Camillus Leonardus further maintains that the virtue of a sigil depends upon the sidereal influences affecting it at the time of its engraving, and not upon any subsequent change in the influences.

In the fifth chapter he divides the virtues of sigils into three classes: universal, independent in their operation of the material employed; particular, more powerful under certain aspects of the heavens; and significative, marking and intensifying the particular virtues of the gem on which they are engraved. The signs of the zodiac belong to the first class, those of the planets and constellations to the second, and the different sigils intensifying the virtues of the different kinds of agate to the third. The sixth chapter treats of the non-astrological sigils and of their significance. Those described are for the most part of Gnostic origin, and are deemed to possess many virtues.

The seventh chapter vindicates the orthodoxy of all these opinions against any charge of their being opposed to the teaching of the Church, and then proceeds to the lapidary proper. The signs of the Four Triplicities are first described, their dominating planets recorded, and their virtues enumerated. These are divided into two categories; the first medicinal, depending upon their qualities of heat and cold, humidity and dryness, and the second affecting the character and fortunes of the wearer, depending upon the force of the dominating planets. Thus the second triplicity—Taurus, Virgo, and Capricornus—has power over all hot and watery diseases, and also '*ex eorum natura ac dignitate suorum dominorum ad religionem gestantes inclinant; et ad ruralia opera ut plantare*

seminare inserere hortos ac uineas ornare et similia facere'. The usual list of the planetary sigils is then given, followed by those of the constellations, with the sign of the zodiac in which they appear, their cardinal position, their affinity to the planets, and their virtues. The fourteenth chapter is *de Imaginibus Magicis*, and begins with the sigils attributed to Rhagael. These are for the most part figures of animals or monsters—a dragon, a falcon, a lion, an ass, a frog, a vulture, a bat, a bull, a bear, and a hoopoe, though a few human figures, of a kind to be found upon ancient engraved gems, are also included. All the sigils, indeed, appear to be derived from this source, with the exception of the 'Names of God', which if engraved upon a thunder-stone will preserve from tempest, and give power and victory. In spite of this derivation, the lapidary uses the formula 'si imago sculpta fuerit' and not 'si inveneris imaginem'. In each case the stone to be employed is prescribed, and the consequent virtues enumerated. Though a manuscript original of this lapidary is not recorded it is certainly of mediaeval origin, and is probably derived from a similar source to that of the lapidary of Thetel. This also appears to be true of the second lapidary given by Camillus Leonardus, that of Chael. Its prologue, indeed, is reminiscent of some of the versions of that beginning Thetel's treatise: 'Chael unus ex filiis filiorum Israel antiquissimus doctor cum in deserto esset vidit ac sculpere fecit multas figuras secundum cursum signorum ac planetarum et maximum effectum in eis agnovit . . .' This lapidary, as given by Camillus Leonardus, includes fifty-two sigils. All of them are already familiar from versions of Thetel's lapidary; a few appear to be derived from the figures of planets and constellations. The composite derivation of the lapidary is shown by the repetition of several paragraphs in slightly different phrases; it forms, indeed, a fairly complete collection of the most usual mediaeval sigils. The succeeding treatise, ascribed to Thetel, contains only ten sigils. One of these is compounded of two separate mediaeval figures: 'Hominis imago sculpta in Iaspide habentis scutum in sinistra, et in dextra idolum vel aliquid bellicosum, et loco pedum sint viperæ et loco capitis

sit caput Galli vel Leonis,' but the others are mediaeval sigils which have suffered no such distortion. The fourth lapidary transcribed is entitled that of Solomon, since, Camillus Leonardus writes, it was found in a book containing many of his works. Most of its sigils are familiar; one recalls the directions for making a magical ring given in one of the mediaeval versions of Thetel's lapidary: ¹

'Caput et collum sculptum in viridi iaspide si inveneris liga in annulo argenteo uel aereo feras illud et nullo modo peribis. et in annulo scribe istas literas B.B.P.P.N.E.N.A. et saluabitur corpus tuum ab omni infirmitate et maxime a febre uel ydropisi et ad capiendum aues dat magnam gratiam, et eris rationabilis ac amabilis in omnibus rebus . . . tamen iustissime ac honestissime feras eum.'

The next lapidary given is that of Hermes, which includes two unfamiliar sigils—'Virgo uel puella uel lampas' and 'Hominis litigantis uel Dei figura'. The book concludes with a list of sigils found 'hinc inde a diversis doctoribus', all derived from mediaeval tradition. Camillus Leonardus, indeed, took most of his theory from Albertus Magnus and nearly all his sigils from mediaeval sources; his own contribution consisted in an elaboration of the zodiacal influences affecting the sigils of the constellations and of the planetary influences affecting the signs of the zodiac, and in an attempt at classification of the sigils as zodiacal, stellar, or non-astrological.

The continued interest in the subject is illustrated by the publication at Frankfurt in 1559 of a work *de Tribus Imaginibus Magicis* ascribed to Thebith ben Corath. This does not represent the version of the treatise of Enoch that is usually ascribed to him, but gives instructions for the use of sigils in magical rites.

Porta's account of the virtues of gems has already been mentioned. Since he ascribes these virtues to celestial influences, he naturally gives some account of the astrological sigils by which they may be intensified.² His description of the planetary figures shows a more exact knowledge of their classical types than is found at an earlier date; he also

¹ Bodleian Digby 78, fol. 178 v.

² cap. xxiii.

enumerates, but does not describe, the symbols of the constellations, the zodiac, and the degrees of the signs. In the following chapter he gives an account of the sigils appropriate to each kind of gem. Amethyst, for instance, is often found engraved with the figure of Mercury, 'nec a lapidis virtute discordat, unde sapientiam et intellectum gestantibus pollicetur, et multa cum versatilis sit eius natura'.

To cornelian are appropriate '[figurae] variae diuersaeque ob variam et diuersam eius virtutem et operationem, qui lapis facilis est sculpturae et inuentionis, unde filios Israel in deserto horum multitudinem sculpsisse fertur'. Further, Porta enumerates the metals appropriate to the planets and therefore to be used in conjunction with their sigils and describes the states of the heavens in which the sigils may favourably be engraved.

The next important book of the Renaissance touching on the subject is the *de Occulta Philosophia Henrici Cornelii Agrippae ab Nettesheym*, published in Paris in 1567, thirty-two years after his death in 1535. Of as adventurous and inquiring a disposition as Jerome Cardan, he led a life as eventful if not as unhappy, and pursued studies as occult, as those of his Italian contemporary. He elaborated a system of the universe, comprising three worlds—divine, celestial, and physical—eternally linked and eternally reacting one upon the other through the atoms interchanged between them, that is clearly derived from the system of Arnold of Villanova. Man is the microcosm of the three worlds; if he knows himself he knows all things. The physical world is formed of the four elements, and is under the influence of the sidereal bodies; in this part also Cornelius Agrippa follows the mediaeval tradition in his cosmic system.

Similarly he attributes the traditional virtues to precious stones. The *de Occulta Philosophia* has a section on magical rings¹ to which is attributed the power of making their wearer sad or joyful, hated or beloved, bold or timid and of protecting him from disease, poison, enemies, demons, and any other evil. Such rings are to be made when a fortunate star is in the ascendant and in good aspect with the moon, and are

¹ p. 84.

to be wrought in the metal appropriate to the star, and set with a stone with a herb beneath it subject to the same influence. Finally the due inscription or sigil is to be engraved upon it, in the smoke of the appropriate resinous or aromatic substance. He attributes magical power to other jewels and talismans (p. 83), since by touching the body they effect a contact between the forces that endue them with power and the spirit of the wearer.

A lapidary of engraved gems is given in the second book.¹ Camillus Leonardus is followed in the classification adopted, the importance attached to the position of the stars influencing the sigils, and the relation established between the influences of the planets and of the zodiacal signs.

Cornelius Agrippa draws a clear distinction² between sigils of astrological origin and those derived from sympathetic magic, made '*secundum similitudinem illius, quod desiderat animus operantis*'. Most of these, he says, are representations of figures:

'sic ad amorem fabricamus imagines se invicem amplectentes; ad discordiam, se percutientes; ad inferendam vero calamitatem, uel destructionem, uel impedimentum, uel homini, uel domui, uel urbi, uel alteri rei, conficimus imagines distortas, confractas in membris et partibus, ad similitudinem et figuram eius rei, quam destruere voluerimus uel impedire.'

He begins by enumerating the signs of the triplicities and their medicinal and magical virtues; he then describes the signs of the thirty-six faces of the zodiac, '*de quibus (quod ait Porphyrius) scripsit olim Teucer Babylonius, vetustissimus mathematicus, post quem scripserunt de illis etiam Arabes*'. Here, indeed, is clear evidence of the influence of some work of a similar character to the Alfonsine lapidaries, and this influence is even more marked in the next section, where the sigils of the three hundred and sixty degrees of the zodiac are mentioned, Petrus de Ebano (Apono?) being quoted as an authority on the subject. The constellations are next described according to Aratus, and their traditional virtues given. He then takes each of the planets in turn, and describes the particular sigils with their appropriate stones which have been

¹ p. 262.

² p. 280.

traditionally recommended for each. The sigils given are for the most part versions, sometimes elaborated and sometimes distorted, of those of the mediaeval lapidaries. Occasionally a new symbolic figure is described, such as one of the sigils of the sun: 'Mulier coronata cum gestu saltantis et ridentis, stans in curru quatuor equis tracto, habens in dextra speculum uel clypeum, in sinistra baculum super pectus innixum, flammam ignis gestans in capite.' The proper time for the engraving of the sigils is usually stated with great exactitude. The sigil of Saturn, for instance, bestowing beauty and prophetic power, is to be made

'die Mercurii hora tertia scilicet Saturni, ascendente Geminorum sidere Mercurii domicilio prophetas designante, Saturno et Mercurio coniunctis in Aquario nona coeli plaga, quae et Deus appellatur. Praeterea Saturnus ex trino aspiciat ascendentem, ac Luna similiter, et Sol coniunctionis locum aspiciat; Venus angulum aliquem obtinens sit potens et occidentalis; Mars a Sole comburatur, sed non aspiciat Saturnum neque Mercurium.'

The many instances in which the colour of some part of the sigil is described suggest that though they are given as sigils for gems their use on parchment was also contemplated. In describing a maleficent sigil made under the influence of the Dragon's Tail, Cornelius Agrippa tells us that such a sigil was set by a Jew in a belt given by Blanche of Bourbon to her husband, Peter I of Spain, either with or without her knowledge, and that in consequence he repudiated her. After the sigils of the planets a list of those of the mansions of the moon is given, not to be engraved on a stone, but in the appropriate metal, with which wax of a prescribed colour is to be sealed in the smoke of the appropriate aromatic substance. The sigils of the fixed stars—Algol, the Pleiades, Spica, and the rest—are then given. The virtues ascribed to them are the same as those given in one of the mediaeval lapidaries,¹ but instead of the characters there given sigils of the usual type are prescribed, recalling in several instances those given in the 'lapidary of Enoch'.

¹ Bodleian e Museo 52, fol. 47.

The editor of the *de Gemmis Aliquot* of François Ruet, published in 1566, censored that part of his work which concerned sigils 'quod synceriori religioni non consentanea, sed magica potius videretur'.¹ The statement 'Inter omnes astrorum peritiores conuenit . . . Leonis imaginem aduersus calculum amuletum esse' was permitted to remain in its place, since it was qualified by an attribution of some of the virtue of the amulet to the gold in which it was made.

The tradition of the astrological sigil endured for the greater part of the seventeenth century. The foundations of astrology were being gradually undermined by the diffusion and general acceptance of the astronomical theories of Copernicus, Kepler, and Galileo; but the consequent reaction among those who upheld the value of astrology led to their devoting further thought and research to the study of all the branches of the art, including that of talismanic sigils. The majority of the important English collections of manuscripts on the subject date from this period; John Selden, Elias Ashmole, John Moore, Bishop of Ely, Sir Kenelm Digby, the Earl of Huntingdon, and Dudley Loftus all appear to have been interested in the mediaeval literature of talismans.²

Jacques Gaffarel (1601-1681) was one of the last and most remarkable of these 'Cabbalists'; his advice and his predictions are said not to have been despised by the Council of Richelieu. The most important of his works achieved a certain degree of fame even in this country: 'Unheard of Curiosities concerning the Talismanical sculpture of the Persians, the Horoscope of the Patriarkes, and the reading of the Stars' was 'Englished by Edmund Chilmead, Mr. of Arts, and Chaplaine of Christchurch, Oxon.' Gaffarel's theory of the operation of talismans is based partly on the doctrine of resemblances³ and partly on the power of 'the Celestiall Raies, for the Rendering them Apt to effect that

¹ p. 73.

² See P. F. Arpe, *de Prodigiosis Naturae et Artis operibus Talismanes et Amuleta*, Hamburg, 1717, p. 101 et seqq.

³ *op. cit.*, p. 171.

which we desire'. He defends the legality, authority, and efficacy of talismans, maintaining¹

'That according to the opinion of the Eastern Men, Figures, and Images may be so prepared, under certaine constellations, as that they shall have the power, Naturally, and without the Aide of any *Demon*, or Devell to drive away Noysome Beasts, allay Winds, Thunder and Tempests, and to cure divers kinds of Diseases.'

He expands Albertus' classification of figured stones, classifying them not only according to the manner in which their device appears, but also as natural, accidental, 'not made to any end proposed' and artificial. The natural 'gamahes' are discussed at some length, while the artificial sigils are barely touched upon.

The *Trinum Magicum, sive Secretorum Magicorum opus, editum a Caesare Longino* published in Frankfurt² in 1663 is a composite treatise dating from the latter days of this reaction.

The first book states 'Corpora, siue figurae coelestes nullum habent influxum, seu efficaciam efficiendi et operandi in figuras et characteres a magis dispositos'; but that the virtue of talismans so inscribed lies in the natural sympathies and antipathies of the substance in which they are engraved. The magicians and Platonists assert the contrary, but their opponents say that if there is any such further power in talismans it is due to diabolical influence.

The third part of the book, 'Commentatio de Magnetica Curatione uulnerum citra superstitionem auctore R. G. M. D.', is chiefly concerned with the effects of amulets and talismans. The usual virtues are conceded to precious stones,³ and the marvellous effects of rings of the precious metals, set underneath the stone with the herb, influenced by the same stars, are admitted to exist on the authority of philosophers both ancient and modern. Even astrological talismans are not wholly rejected; if they are made with due regard to the aspect of the heavens their virtues are not contrary to reason;

¹ p. 145.

² apud Cristianum Gerlach et Simonem Beckenstein.

³ See p. 155.

it is only when they are ignorantly employed that they become superstitious.

Such talismans owe their power 'non temperamento, non manifestis qualitibus, non toti substantiae'; they are rather

'diuinae et magicae, hoc est, superiori cuidam et sublimiori causae, inconvenienter Spirituale vehiculum et vinculum quidam appellitarunt, hoc mediante corpus et anima substantiae inuicem distantes copulantur inuicem; hac magnes trahit ferrum, cichoriumque motum Solis insequitur. Hoc vehiculo et vinculo intercedente seu interveniente, Mercurius efficax est in hydrargyro, memoria et cogitativa acuenda uel debilitanda, alectorio lapide, colore, et sapore mixto, Aegypto, Graecia, Anglia, Flandria, Silesia.'

A long list of sigils is therefore given, more or less closely following those prescribed by Cornelius Agrippa. The sigils of the planets are given first, then those of the signs of the zodiac, given singly and not in their triplicities, and then lapidaries of engraved gems ascribed to Rhagael, Chael, Hermes, Thetel, and Solomon. These are derived from mediaeval sources through Camillus Leonardus and Cornelius Agrippa, and contain nothing new in content, classification, or theory, but the inclusion of a few constellations—such as the Charioteer—not commonly found in the earlier lapidaries.

The *Disquisitio Physica de Occultis Qualitatibus, et potissimum de sigillis*, by J. C. Wagner, a dissertation published at Nuremberg in 1663, upholds the traditional view of the efficacy of sigils and talismans:

'Huiusmodi autem qualitates non in terra tantum: verum etiam in coelo reperiri ostendit nobis influxus astrorum varius, in haec inferiora, utpote in metalla gemmas etc. quem influxum non lumine et luce, quia omnia penetrare non queunt, sed alia prorsus qualitate nobis penitus incognita, exercere manifesto liquet.'

He classifies sigils as zodiacal, planetary, or combining the two, and recommends on the authority of Paracelsus two interlaced triangles inscribed ADONAI, and a pentacle inscribed TETRAGRAMMATON, made when the disposition of the heavens is favourable.

The *Musaeum Metallicum* of Aldrovandus not only ascribes the usual medicinal virtues to precious stones, but also states 'Ad dolorem stomachi . . . Iaspis figura Draconis caelatus annulis includi solebat'.¹ Yet even before the development of medical science had eliminated precious stones from the pharmacopoeia, the rise of archaeological interest in the artistic products of the ancient world had led to engraved gems being valued only for their antiquity and the beauty of their craftsmanship, and not for their power of affecting the fortunes of their wearer through their relations with the stars. The new point of view is well exemplified in the book *De l'Utilité des Voyages et de l'Avantage que la Recherche des Antiquitez procure aux sçavants* published in 1686. Its author, M. Baudelot de Dairval, writes on the subject of talismans:

'Je n'ay pas envie néanmoins de donner icy . . . tout ce qu'on en a écrit sans l'examiner. Je me suis plus attaché d'ailleurs à rapporter ce que les anciens en ont pensé, et à éclaircir quelques passages qui m'ont paru difficiles, qu'à composer un traité qui en enseigne la fabrique.'²

¹ bk. iv, p. 871.

² ii, p. 361.

VIII

MAGICAL JEWELS OF THE RENAISSANCE

THE difference between the jewels of the Middle Ages and those of the Renaissance is as marked as that between Gothic and Classical architecture, and the change from the one style to the other was complete in a few years. The arabesques and scrolls of the new style and the gems of the New World did not, however, completely drive out the magical element. Jewels set with magical stones, engraved with talismanic characters, or made in symbolic magical designs, are to be found recorded in the literature and inventories of the sixteenth century, or still surviving the changing and destructive tastes of later generations.

The type which might be expected earliest to feel the influence of the Renaissance in England was that engraved with magical phrases derived from the beliefs and ritual of the Roman Church, or designed in accordance with its symbolism. Such ornaments were extremely common. In the earlier years of the sixteenth century the usual jewel of a gentleman of rank was a cross or crucifix, or such a reliquary medallion decorated with religious subjects as that of Sir Thomas More now preserved at Stonyhurst. The Tau Cross pendant survived into the earlier years of the sixteenth century; it is shown in pictures of Jane Seymour,¹ Catharine Howard, and Mary Tudor, and on the brass (*c.* 1528) of the four wives of Sir Richard FitzLewes at Ingrave in Essex. A pendant of the sacred letters IHS appears in portraits of Jane Seymour,² and one is recorded in the inventories of Catherine Howard³ and Queen Mary Tudor.⁴ Jewels of this

¹ In the collection of Mr. H. Dent Brocklehurst; Burlington Fine Arts Club Exhibition of Early English Portraits, No. 6.

² Imperial Gallery of Vienna; collection of Lord Sackville, B. F. A. C. Exhibition of Early English Portraits, No. 46; and miniature in the collection of the Duke of Buccleuch.

³ B. M. Stowe 559.

⁴ Madden, *Privy Purse Expenses of the Princess Mary*, p. 186.

type are rare after her death, but a design for one is to be found in the sketch book of Arnold Lulls, jeweller to Queen Anne of Denmark.¹

The *Agnus Dei*, a consecrated medallion stamped with the Lamb and Flag, made from the wax of the Paschal candle, was another jewel of a religious character worn as a kind of amulet. Mary Queen of Scots possessed two in 1586;² one 'de cristal de roche, ayant au dedans un neptune', and a second hung from a chain, but these are the latest recorded in an English inventory. That their use as amulets was recognized in the sixteenth century is proved by the story told in 1568 of a soldier on whom firearms had no effect, whose defence was found to be an *Agnus Dei* round his neck,³ and by Bishop Hall's reference to 'a little hallowed wax' as an antidote to all evils.⁴ Scot in his *Discoverie of Witchcraft*⁵ describes such a talisman :

'These vertues under these verses (written by Pope Urbane the fift to the emperour of the Graecians) are contained in a periapt or tablet, to be continuallie worne about one, called *Agnus Dei*, which is a little cake, hauing the picture of a lambe cairieing of a flag on one side, & Christs head on the other side, & is hollow : so as the gospell of S. *John*, written on fine paper, is placed in the concautie thereof; and it is thus compounded & made, even as they themselves report.

Balsamus et munda cera, cum chrismatis unda
Consciunt agnum, quod munus do tibi magnum,
Fonte velut natum, per mystica sanctificatum;
Fulgura de sursum depellit, et omne malignum
Peccatum frangit, ut Christi sanguis, et angit,
Praegnans seruatur, simul et partus liberatur,
Dona refert dignis, virtutem destruit ignis,
Portatus munde de fluctibus eripit undae.'

Scot also records other superstitious practices of a like character;⁶ 'As the Cabalists in times past tooke upon them,

¹ Victoria and Albert Museum, Department of Ornament.

² Quoted Laborde, *op. cit.*, p. 122, s. v. *Agnus Dei*.

³ Quoted Dalyell, *Darker Superstitions of Scotland*, p. 158.

⁴ Quoted Pettigrew, *Medical Superstitions*, p. 43.

⁵ 1584 ed., p. 230.

⁶ p. 217.

by the ten names of god, and his angels, expressed in the scriptures, to worke wonders' so 'the papists at this daie by the like names, by crosses, by gospels hanged about their necks . . . & a thousand consecrated or rather execrated things, promise unto themselves & others, both health of bodie & soul'.¹ He also records various charms of the mediaeval type—such as ANANIZAPTA, *Iesus Nazareus*,² and more lengthy formulae—but there is no direct evidence to prove that these were in common use in England in the sixteenth century. On the other hand the development of astrology fostered by a wider knowledge of ancient alchemical writings led to a more common use of the periapt or talisman engraved with magical characters. The most distinguished astrologers did not reject the Divine Names and similar formulae of mediaeval tradition; Cornelius Agrippa gives a full list of them, and directions for making golden talismans engraved with similar Hebrew formulae, in the third book of his *de Occulta Philosophia*.³ Bishop Hall describes the superstitious man as wearing 'Paracelsian characters for the toothache'.⁴ The Xenexicon, or plague amulet of Paracelsus, engraved with the figures of a scorpion and a serpent as the sun enters Scorpio, was also recognized.⁵ Towards the end of her reign Sir John Stanhope presented to Queen Elizabeth 'a piece of gold of the bigness of an angel, full of characters, which he said an old woman in Wales had bequeathed to her on her deathbed; and whereupon he discoursed how the said testatrix by virtue of the piece of gold lived to the age of 120 years, and in that age . . . died,

¹ For evidence of belief in the powers of good and evil angels see the *Medicina Catholica seu Mysticum Artis Medicandi Sacrarium* of Robert Fludd, Frankfurt, 1629, giving 'Hieroglyphica Mystice Salutis' showing Michael, Raphael, Uriel, and Gabriel defending man from Mahazael Samael, Azazel, and Azael as they attack him from the four corners of the heavens.

² John Selden, however, in his *Table Talk* (L) gives his opinion that this phrase was used on the old gold pieces as a charm to prevent loss.

³ p. 334.

⁴ Ibid.

⁵ See King, 'Talismans and Amulets,' *Arch. Journ.*, xxvi, 1869, p. 227.

commanding the said piece of gold to be carefully sent to her Majesty, alleging further that as long as she wore it on her body she could not die. The queen in confidence took the said gold and hung it about her neck,' but died soon afterwards.¹ Simon Forman, who for years made a public profession of necromancy and magic at Lambeth, left manuscript notes 'Of Castinge Mouldinge & Makeinge of Ymages lamine Rynges & suchlike for or by the figure Astronomicalle'² as well as instructions concerning 'Karacters & sigils'.³ Another Elizabethan manuscript,⁴ entitled 'The Arte of Secrete Magyke' contains lists of characters and sigils, of the names of good and bad angels, of charms and pentacles, and of the 'divine Names of God'—a curious collection of cabalistic and astrological fragments. A rather later work, *de Cabala Sacra; et de ineffabili Dei nomine Tetragrammaton*,⁵ is divided into two books 'De duobus et septuaginta attributis Dei nominis' and 'De nomine Dei duodecim litterarum'.

But when magical stones are considered, it must be recognized that delight in the brilliance and colour of gems is so typical of Renaissance taste that it is only on most irrefutable evidence of belief in its supernatural properties that a stone can be classified as magical. The toad-stone can never have been worn for its intrinsic beauty, yet many are recorded in inventories of the first half of the sixteenth century; the will of Sir John Calveley (d. 1506) mentions 'a cross of gold wt. a crappot in the same',⁶ and Erasmus visiting the shrine of Our Lady of Walsingham, wrote 'At the feet of the Virgin is a gem for which there is as yet no Latin or Greek name. The French have named it after the toad, because it represents so perfectly the figure of a toad that no art could do this so well'.⁷ The sorcerer Wood asserted of Cardinal Wolsey that 'My Lord Cardinale had suche a ringe that whatsomever he askyd of the Kynges grace that he hadd yt'.⁸ Cardan,

¹ Strickland, *Lives of the Queens of England*, iv, p. 770.

² Ashmole 1494, fol. 321.

³ Ibid., fol. 586.

⁴ B. M. Harleian 2267.

⁵ B. M. Lansdowne 440.

⁶ *Arch. Journ.*, lxvi, 1909, p. 99.

⁷ *Colloquia*, 1613 ed., p. 596.

⁸ Quoted Bratley, *Power of Gems and Charms*, p. 6.

again, writing of the different kinds of agate and their virtues¹ states :

'Ego habeo cum capite, ut dixi, Galbae, colore ferrugineo diluto lineis nigris, figuram eam referentibus; qui moeroris causas aufert, et somnium conciliat. Alium habeo cum multis oculis albis, ac quasi pupilla in medio ferruginea. Hunc credo ad prudentiam plurimum conferre, si appendatur collo. Sed forsán gemma est sui generis.'

The use of prophylactic jewels was even more common abroad than in England. Many sixteenth and seventeenth century rings of foreign origin exist, set with horn or ass's hoof against epilepsy,² and a well-known type of German ring of the seventeenth century is set with wolf's teeth.³

A dramatic picture of the last days of Ivan the Terrible has been left by Sir Jerome Horsey.⁴ While at Moscow the emperor was

'carried everie daye in his chair into his treasure. One daye the prince beckoned to me to follow. I strode emonge the rest venturously, & heard him call for some precious stones & jewells. Told the prince & nobles present before & aboute him the vertue of such & such, which I observed, & do pray that I maye a littell degress to declare for my own memorie sake.

"The load stone you all know hath great & hidden vertue, without which the seas that compass the world ar not navigable, nor the bounds nor circle of the earth cannot be knowen. Mahomett, the Percians profitt, his tombe of steell hangs in their Rapatta at Darbent most miracously." Caused the waiters to bringe a chaine of nedells towched by this load stone, hanged all one by the other—"This faire currell, this faire turcas you see; take in your hand; of his nature are Orient coullers; put them on my hand & arm. I am poisoned with disease; you see they shewe their vertue by the change of their pure culler into pall; declares my death. Reach out my staff roiall, an unicorn's horn garnished with verie fare diomondes, rubies, saphiers, emeralls & other precious stones that are rich in vallew; cost 70 thousand marks sterling of

¹ *De Gemmis et Coloribus*, bk. ii, cap. i, p. 324.

² e.g. Dalton, *Catalogue of Finger Rings in the B. M.*, p. 905.

³ *Ibid.*, pp. 912-15.

⁴ *Travels*, published by Hakluyt Society, p. 200

David Gower, from the foulkers of Ousbourghe. Seek out some spiders." Caused his phiziccians, Johannes Lloff, to scrape a circle therof upon the tabell; put within it one spider and so one other & died, and some other without that ran alive a pace from it¹—"It is to late, it will not preserve me. Behold these precious stones. This diomond is the orients richest & most precious of all other. I never affected it; yt restreyns furie & luxurie & abstinacie & chasticie; the least parcell of it in powder will poysen a horse geaven to drink, much more a man." Poynts at the ruby. "O! this is the most comfortable to the hart, braine, vigar & memorie of man, clarifies congelled & corrupt bloud." Then at the emerald—"The natur of the reyn bowe; this precious stone is an enemye to uncleannes . . . The saphier I greatly delight in; yt preserves & increaseth courage, joies, the vitall sensis, precious & verie soveraigne for the eys, clears the sight, takes awaye bloud shott, and strengthens the mussells and strings therof." Then takes the onex in hand—"All these ar Gods wonderfull guifts, secreats in natur, and yet revells them to mans use & contemplacion, as frendes to grace & vertue & enymies to vice. I fainte, carye me awaye till an other a tyme."

Burton, in his *Anatomy of Melancholy*,² says of the sapphire: 'It is the fairest of all precious stones of sky colour, & a great enemy to black choler, frees the mind, & mends manners.' The prevalence of such beliefs makes it the more remarkable that Shakespeare, mentioning precious stones in almost all his plays, never attributes to them any magical quality.

The most valuable concoctions of the alchemists included gems in their composition; an interesting receipt for making an 'Elixir of precious Stones', written by Robert Greene of Welby in 1531, is in the Bodleian Library.³ They were also included in the recognized pharmacopoeia; preparations of

¹ See A. Paré, *Discours de la Licorne*, 1582, p. viii: 'Plusieurs tiennent que si l'on fait tremper de la corne de Licorne en de l'eau, et que de ceste eau on face un cercle sur une table; puis qu'on mette dedans ledit cercle un scorpion ou araignée ou un crapault, que ces bestes meurent; et qu'elles ne passent aucunement par dessus le cercle. Je l'ay voulu experimenter, et ay trouué cela estre faulx et mensonger.'

² ii. ¶ 4, l. 4.

³ MS. Ashmole 1467.

them were administered to Charles VI of France and Lorenzo dei Medici on their death beds,¹ and are described in Olivier de la Haye's poem on the Great Plague of 1548.²

It has been shown that the lapidary of engraved gems survived the Renaissance, but among the innumerable cameos and intaglios of that period there are few which can be definitely described as magical. In a few cases, however, the record of the subject engraved gives evidence of astrological influence; Erasmus in 1534 owned an 'anulus astrologicus',³ and Gabrielle d'Estrées possessed in 1599 a carcanet 'contenant seize pieces a sept desquelles sont representees les sept planettes . . . et la sezieme piece, servant a mettre au milieu dudit carquant, ou est représentée un Jupiter'.⁴

The bulk of the English evidence for the sixteenth and seventeenth centuries deals with stones to which medicinal virtues were ascribed. The 1586 inventory of the jewels of Mary Queen of Scots⁵ includes 'a littel bottel of golde conteyning a stone medicinale for the colike', and the will of Jehan de Charmolue, dated 1604,⁶ bequeaths to his cousin 'une pierre d'aigle garnye d'argent la plus belle et bonne quy se puisse voyr. Elle soulage fort les femmes grosses en leur accouchement, la lyant a la cuisse gauche, et la fault retirer incontinent que l'enfant est au monde.' In 1624 James Keith of Benholme, a Scottish landed proprietor, was accused of the 'tressonabill and theftious steilling by way of Maisterfull-thift & Stouthereiff' from the house of George, Earl Marischal, 'ane jasp stane for stemming of bluid, estimat to fyve hundreth French Crownes'.⁷ Palma Cayet records⁸ that Philip II was

¹ See Robert Love, *Panmineralogicon*, Oxford, 1661, p. 77.

² Quoted Havard, *Dictionnaire de l'Ameublement*, s.v. *Pierre Magique*.

³ *Bodleian Quarterly Record*, vol. ii, 1918, p. 143. This may have been some form of ring-dial.

⁴ Laborde, *op. cit.*, p. 195, s.v. *Carquan*.

⁵ B. M. Stowe 566.

⁶ In the archives of Bethune; Laborde, *op. cit.*, p. 440, s.v. *Pierre d'Aigle*.

⁷ Pitcairn, *Criminal Trials*, iii, pp. 563-4; *Proc. Soc. Ant. of Scot.*, xxvii, p. 513.

⁸ *Chronologie septennaire*, quoted Havard, *loc. cit.*

given by his physicians two days before his death in 1578 'un breuvage de hyacinte, pierre precieuse, duquel il dit, en le prenant, que sa mère l'impératrice, un an devant sa mort, en avoit beu un semblable'. None the less the most intelligent physicians were opposed to the practice; Ambroise Paré in his *Discours de la Licorne* of 1582 declares (p. 37):

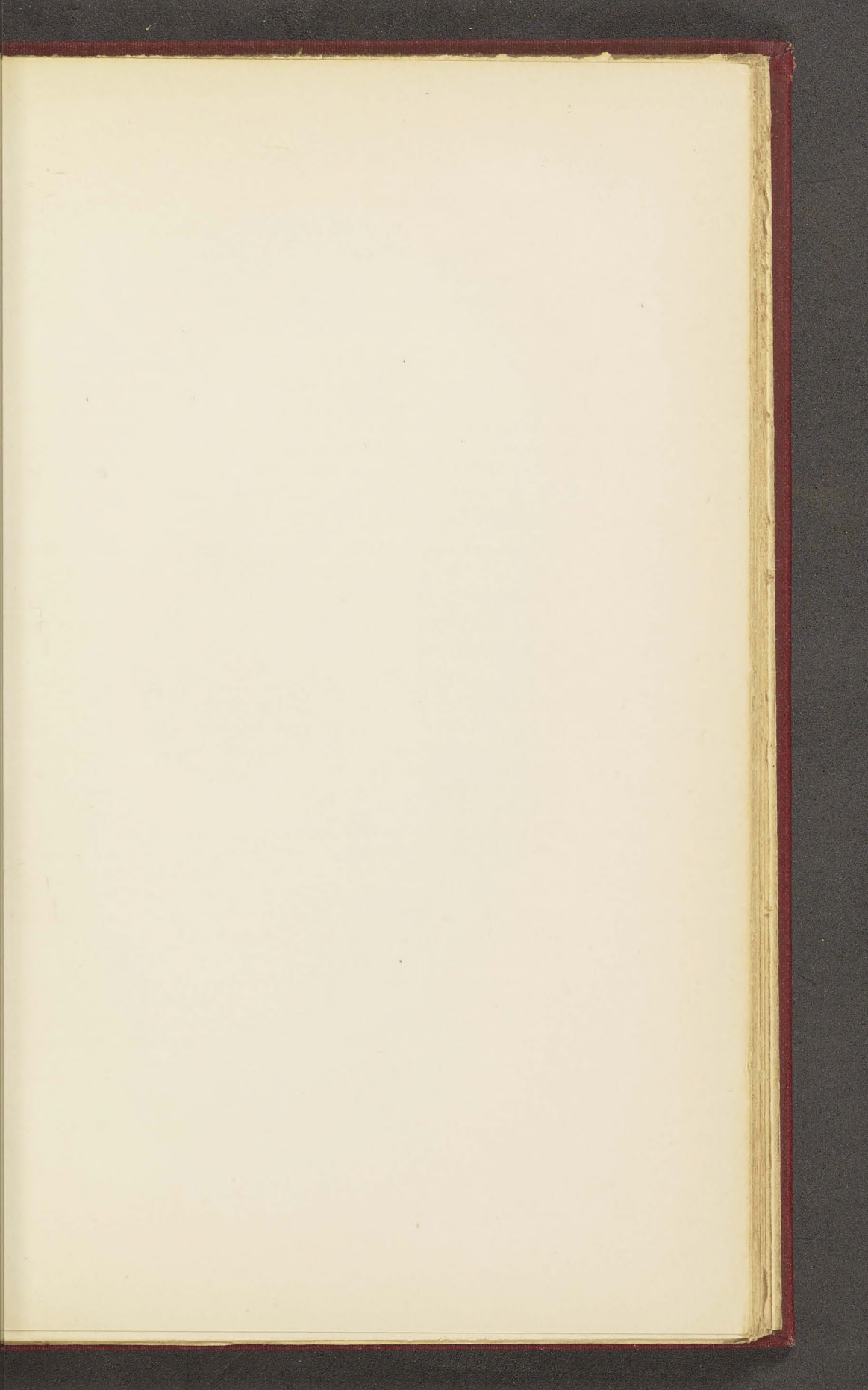
'Quant aux perles et autres pierres precieuses, ie suis de l'aduis de monsieur Ioubert, Medecin Ordinaire du Roy, lequel au chap. 18. d'un traicté qu'il a escrit de la Peste, dit ainsi. Je ne scay que ie doiy dire touchant les pierres precieuses, que la plus grand'part des hommes estiment tant, veu que cela semble superstitieux, et mensonger, d'assurer qu'il y a une vertu incroyable et secrette en elles, soit qu'on les porte entieres sur soy, ou que l'on use de la pouldre d'icelles.'

A seventeenth-century treatise on precious stones¹ contains a list 'of diuers rare stones found in the Indies,' chiefly of a medicinal character, and interesting as showing the increased knowledge in England of Eastern countries, customs and superstitions.

'There is a stone found in ye Iland of Zelan Cambia & Balagatt called off the Indians Alakecca or Alequick² wch is a stone excellent good to staunch bludd. Ther is allso found the milke stone wch causes plenty of milke to women that giue sucke. There is found the spleen stone butt off a Duskish greene Cullar som whatt whiteish itt is Long with a lope commonly in itt to hang about you & beeing hanged in the place where the spleene trubleth you itt helpeth the paine therof. Ther is found in the Cuntry off Rain by Malacco a stone wch cometh outt off the gaule of an Hogge called Pedro De porco the hoggs stone which the Portugallas doe more esteeme then bezoar stone & to be better against poyson then it is. This stone off a cleare cullar bitter in taste & savoreth like French sope when ye of Malaca use itt the take itt & throwe itt in too a cup of fayre water & so lett itt stand a Litell wch beeing done the take itt out againe & the water will bee fitter to drinke itt & will cleane all the venome or poyson a man hath in his body as itt hath often been proued.'

¹ B. M. Sloane 2539. See p. 149.

² Cf. *Lapidary of Alfonso X*, iii; iv. 10. I Cancer 2; II Aries.





I



2

IV. PENDANTS OF MAGICAL STONES

1. 'The Right Elatrop.'

2. Aetites.

Jade or jadeite, *lapis nephriticus*, was also in common use as an amulet against renal complaints. The same treatise continues:

'There is a stone also found called Mempriticus . . . wch beeing peerced with a hole & hanged aboute the place where you are pained wth ye stone itt causeth ye stone to breake . . . as hath bin proued by divers skillful men here in England that have been troubled wth that grieve & found ease itt I remember I saw one off these stones in the hands of My Lord Thomon an Irish Lord who Deliuered me ye same to cutt into too peecees for him to give the one peece to a frend of his that was troubled wth the stone hee made great estimation off ye stone & affirmed upon his honour thatt the same stone had thatt vertue to breake the stone.'

There is in the British Museum a thin highly polished neolithic celt of jadeite, mounted in a silver frame, with a hole bored through either end. It is said to have come from Scotland, and to have been worn attached to a belt to cure the stone. Sir John Evans owned a jadeite celt of blunter form, mounted with a shank and ring of silver (Plate IV 1); but this, though certainly valued as an amulet, was not so valued as being of nephrite, since the shank bears the inscription 'The right Elatrope', which was¹ 'the speciall stone to staunche bleeding & good against poyson'.

Sir Thomas Browne, faced by a problem not unlike that which confronts the modern student of radio-activity, declared:²

'If amulets do work by emanation from their bodies upon those parts whereunto they are appended and are not yet observed to abate their weight; if they produce visible and reall effects by imponderous and invisible emissions, it may be unjust to deny all efficacy to gold, in the non-emission of weight or deperdition of any ponderous articles.'

That belief in the medicinal properties of gems was not rejected by the Church is proved by the statement of an anonymous prelate in the *Mercure Galant* of November, 1678:³

¹ Sloane 2339, fol. 39.

² *Pseudodoxia Epidemica*, 1650, bk. ii, ch. 5, p. 65.

³ Quoted Havard, *op. cit.*, s. v. *Saphir*.

'Tous les évêques portent un saphir dans leur anneau pastoral, pour les faire souvenir qu'ils doivent assister les pestiférés et les guérir par la vertu que la nature a renfermé dans cette pierre précieuse.'

The commonest use of precious stones and similar substances used in jewels was not against disease but against poison. The use of 'touches' or 'proofs' survived the Middle Ages. Henry VII in 1504 had 'a unicorns bone & a serpent's tongue hang be a cheyne'¹ and the 1586 inventory of the plate of Mary Queen of Scots includes 'une grande coupe d'argent doré, avec son couvercle et deux essays'.² The same inventory also records 'une pierre noire contre le poyson, de la forme et grosseur d'un œuf de pigeon, ayant sa couverture d'or' and 'une rouelle de licorne garnye d'or, attachée à une chaisne d'or'. This must have been a jewel set with a segment of a unicorn's horn, like the still existing jewel belonging to the family of Campion of Danny³ (Frontispiece). The surface at the back of this shows signs of having been scraped away, presumably for medicinal purposes.

The will made in 1614 by Sir Nathaniel Bacon of Stiffkey⁴ gives directions for the bestowal of such a jewel that leave no doubt as to the importance attached to it:

'I give to all my three daughters the jewel of unicorn's horn, according to their mother's direction, that each one may challenge the use thereof when needs require and my wife may have the use thereof when she needs, but my daughter Townshend is to have the custody thereof for life.'

The manuscript treatise⁵ from which quotations have already been made gives an account of the 'Unicornia or Monoceros so called of the lattines & the Greekes', and of an experiment made to test the virtue of its horn:

'Hee hath caused too Dogges to bee poysoned, the one he hath giuen a duple quantitie off Poyson & to him hee gave

¹ Palgrave, *Kalendars and Inventories*, iii, p. 395.

² Laborde, *op. cit.*, p. 304, s. v. *Essai*.

³ A. Clifford Smith, *Proc. Soc. Ant. Lond.*, xxvi, 1914, p. 235.

⁴ *Calendar of State Papers, Domestic, Elizabeth and James I*, Addenda 1580-1625, p. 542.

⁵ Sloane 2539, fol. 103.

good quantitie of Unicornes horne in pouder or scraped with water And the dogg hath beene well againe to the other he gave Less quantitie of poyson & no Unicornes horne & ye dogge presently Died. The vallew or price of ye horne beeing perfect & right according to the notes before sett downe Is worthe to bee bought of the Merchant ffrom £5 to £10 ye ounce Dearer or cheaper as the Merchant & ye byer can agree.'

In spite of the criticism of Ambroise Paré¹ and Bernard Palissy, the use of such a proof was long continued in the ceremonial usage of the French Court; it is mentioned in the ordinance on ceremonial of 1681 and only came to an end with the revolution of 1789.²

Another common 'proof'—'serpents' tongues'—is described in an anonymous manuscript lapidary already mentioned:³

'Tongs of Adders', it states, 'are of many Coulers as browne black but ar red against ye mone, they ar of mos vertue for kepeth a man from venome yt bereth it. And he yt hath it in his keeping it sure will preserve him it will full fast sweate. And ther for it should be set in siluer, both for kings lords at ther meate, so yt they may be kept ye safer from poyson; it is good ether in siluer or in gold, & many do find it in many places betwixt ye gravell of ye great sea beyond ye greater britaine.'

Aldrovandus in his *Musaeum Metallicum* gives⁴ an engraving of a prehistoric flint arrow-head to illustrate his description of the glossopetra or serpent's tongue; such arrow-heads were probably the stones, used as 'proofs' against poison, recorded in the inventories. Mounted in silver they were commonly worn as charms in Scotland,⁵ and in Ireland as amulets against 'elf shot'⁶ and to cure cattle that had been bewitched,⁷ as also in many parts of the Continent.

¹ *Discours de la Licorne*, Paris, 1583.

² Laborde, *op. cit.*, p. 304, s. v. *Essai*. ³ Sloane 2628, fol. 27. ⁴ p. 604.

⁵ Lukis, *Reliquary*, viii, p. 207; *Catalogue of Museum of Archaeological Institute in Edinburgh*, 1856, pp. 8 and 127; Evans, *Ancient Stone Implements*, p. 363.

⁶ Douglas, *Naenia*, p. xxxiii. 6, p. 154; *Philosophical Transactions*, t. iv, Pl. 14, Fig. 11; Gough, *Camden's Britannia*, iv, p. 232, Pl. xviii; Evans, *op. cit.*, p. 365.

⁷ Buck, in *Journ. of the Roy. Soc. Ant. of Ireland*, 5th series, v, p. 61.

The seventeenth century generally recognized the medicinal use of gems. Francis Bacon is recorded to have taken a paste of powdered pearls made with lemon juice¹ and Robert Love's *Panmineralogicon, or Summe of all authors*, published at Oxford in 1661, gives² a very full list of the pharmacopoeical use of this and other gems. The '*Pharmacopoea, sive Dispensatorium Coloniense . . . Revisum et auctum . . . labore . . . Petri Holtzemii*' also gives a list of stones in medicinal use. Their preparation is thus described:³

'Corallorum rubrorum et alborum praeparatio, est subtilissima eorum cum aqua rosacea in lapide porphyrii contritio, formantur dein ex his placentulae quae exsiccatae in usum exponuntur. Idem est margaritarum, et lapidum preciosorum praeparandi et adservandi modus.'

Cramp rings continued to be in common use,⁴ and besides those made from the gold of the royal offering others set with substances believed to possess medicinal virtues were employed. The *Pharmacopoeia Londinensis* of 1661⁵ states that 'Elk's claws or hoofs are a sovereign remedy for the falling sickness, though it be but worn in a ring . . .', and the *Musaeum Societatis Regalis* of Nathaniel Grew, published by order of the Royal Society in 1681, records in a description of the river-horse or hippopotamus that 'rings made of his teeth are believed to be very effectual against the cramp'.

Most of the stones employed as amulets in this country at this date appear to have been so used on the strength of an ancient tradition, and the records of such usage come for the most part from the remoter parts of Britain. In Scotland about 1629 a distemper called the 'routing ewill' was prevalent: 'a strange & suddane diseas quhairthrow' an ox 'was nevir able to ly down, bot routed continyallie till he deid'. For a cure for this some travelled from East Lothian 'to the laird of Leyishouse, & cravett the len' of 'his cureing stane, quhilke was refuisit be the lady; but gave thame ane certaine quantitie of water in flacones quhairin the said stane was dippit, whilk being gevin as drink to the bestiall haillit thame'. This

¹ *Historia Vitae et Mortis*, 1623, p. 100.

³ p. 9.

⁴ See p. 136.

² pp. 77-9.

⁵ p. 20.

amulet, still preserved as an heirloom in the family of Lee, is a pendant made from a silver coin of Edward I of England in which is set a yellowish stone, not unlike amber.¹ When the plague raged in Newcastle in the reign of Charles I, the city borrowed this amulet, depositing their bond of £6,000 as surety for its safe return. Its powers were considered to have done so much to alleviate the pestilence that the citizens offered to forfeit their bond that they might retain possession of the stone.² Later in the century some zealous members of the Presbyterian Church sought to find the taint of magic in the use of this talisman; but the Glasgow Synod, having examined the evidence, decided that since it was employed

'wtout using onie words such as charmers and sorcerers use in their unlawfull practisess; & considering that in nature there are mony things seen to work strange effects, qrof no human witt can give a reason, it having pleasit God to give to stones & herbes special virtues for the healing of mony infirmities in man & beast, advises the brethren to surcease their process, as qrin they perceive no ground of offence: And admonishes the said Laird of Lee, in the useing of the said Stone to tak heed that it be used hereafter wt. the least scandal that possiblie may be'.³

Its use was therefore continued; it is said to have been successfully employed at the beginning of the eighteenth century by Lady Baird of Saughtonhall when attacked by symptoms diagnosed as those of hydrophobia.⁴

The tradition of the use of several other Scottish healing-stones appears also to date from the Middle Ages. The Bairds of Auchmeddan had a ball of black coloured flint, mounted in four strips of silver, that was said to have belonged to them since 1174.⁵ The Clach-na-Bratach, or Stone of the Standard, has been in the possession of the Chiefs of Clan Donna-Chaidh since 1314; it is said to have been found by the then chief in a clod of earth hanging to the staff of his

¹ Dalryell, *Darker Superstitions of Scotland*, p. 156.

² *Proc. Soc. Ant. of Scot.*, iv, p. 223.

³ *Ibid.*, p. 224.

⁴ *Ibid.*, p. 223.

⁵ *Ibid.*, p. 221; it later passed by marriage into the possession of the family of Fraser of Findrack.

standard on his march to Bannockburn. Water in which it had been dipped by the head of the clan was thought to cure the diseases of men, cattle, and horses; as late as 1830 it was dipped by the chief with due ceremony in a great china bowl filled with water from a 'fairy' spring, which was afterwards distributed to a number of people who had come great distances to obtain it for medicinal purposes.¹ The Glenorchy charm stone of Breadalbane is described in the *Black Book of Taymouth*, the work of William Bowre, tutor to the Glenorchy family in the later years of the sixteenth century, as 'ane stane of the quantitye of half a hen's eg set in silver, being flatt at the ane end & round at the uther end lyke a peir, whilk Sir Coline Campbell, first Laird of Glenurchy, woir when he fought in battell at the Rhodes agaynst the Turks, he being one of the Knychtis of the Rhodes'. The stone, in a fifteenth-century setting of silver adorned with eight pearls, is in the possession of the Marquis of Breadalbane.² The Ardvorlich 'Clach Dearg', an heirloom in the family of Stewart of Ardvorlich, is said to have been brought from the East by the Crusaders. It is a ball of rock-crystal about $1\frac{1}{2}$ inches in diameter, mounted in two hoops of silver with a loop and chain for suspension, and was held in great repute as a charm stone for curing the diseases of cattle. It was so used as late as 1862, when it was deposited at a bank to put a stop to the practice.³ The Keppoch charm stone—an oval ball of rock crystal, which legend states to have grown on the top of the head of a toad—was dipped in water taken from St. Bridget's well, while a Gaelic incantation was pronounced invoking the Apostles, the Virgin, the Trinity, and the Angels.⁴ Similar charm stones are recorded⁵ and a number are still extant.⁶

¹ *Proc. Soc. Ant. of Scot.*, xxvii, p. 441.

² Lent to the Exhibition of Historical Relics in the Bishop's Palace, Glasgow, 1888; Paton, *Scottish National Memorials*, p. 337.

³ *Ibid.*, p. 338; *Proc. Soc. Ant. of Scot.*, iv, p. 220.

⁴ *Proc. Soc. Ant. of Scot.*, xxiv, 1890, p. 157.

⁵ See Pennant, *Tour in Scotland & Voyage to the Hebrides*, 1772, i, p. 116.

⁶ See Paton, *op. cit.*, p. 338.

Lhuyd, Curator of the Ashmolean Museum, when a visitor to Scotland in 1699, gave in a letter from Linlithgow¹ an account of the magical stones there held in repute. The adder-stone² was accredited with universal virtues; 'not only the vulgar, but even gentlemen of good education, throughout all Scotland, were fully persuaded that snakes made them.' The stone was suspended from the neck for whooping cough and other childish diseases; it was considered to ensure prosperity and to repel evil spirits. It was usually kept in an iron box to keep it from the fairies. Lhuyd saw at least forty varieties of these amulets between Wales and the Highlands of Scotland, but failed to discover any in Ireland. Many examples of adder-stones and adder-beads are elsewhere recorded³ and their use was continued till late in the eighteenth century. Pennant, in his *Tour in Scotland & Voyage to the Hebrides* published in 1772,⁴ states that they were used 'to give ease to women in child-birth by being tied about the knee'. A stone was kept for the purpose in St. Ronan's Chapel in the island of Rona.⁵

Lhuyd further mentions the toad-stone and the snail-stone. The former, he states, 'is preserved to prevent the burning of a house, and the sinking of a boat; and if a commander in the field has one of them about him, he will either be sure to win the day, or all his men shall fairly dye on the spot'. The snail-stone he describes as a small hollow cylinder of blue glass, composed of five or six rings; among other virtues it possessed the power of curing sore eyes. Another amulet, the mole-stone, was a similar glass object; both these and the adder-stone were doubtless ancient beads accidentally discovered in the earth. A curious instance of magical properties being attributed to an ancient jewel found at the end of the eighteenth century is the medicinal virtue ascribed to a ring of jet, found in a cairn in the parish of Inchinnan about 1753. It was preserved in the parish of East Kilbride as an inestim-

¹ *Philosophical Transactions*, xxviii, No. 9, p. 98; Dalyell, *Darker Superstitions of Scotland*, pp. 140-2. See also *Folklore*, 1921, xxxii, p. 267.

² See p. 110.

³ See *Proc. Soc. Ant. of Scot.*, xxvii, p. 469.

⁴ p. 298.

⁵ Martin, *Western Isles*, p. 21; Dalyell, *op. cit.*, p. 131.

able specific in diseases, 'more valuable than many tons weight of medicine'.¹

An instance of a seventeenth-century magical talisman of religious form, doubtless of foreign origin, is recorded² as having been found in a linen purse round the neck of a Roman Catholic, a smuggler named William Jackson, when he died after being convicted of murder at Chichester in January 1648-9. This bore the inscription:

*Sancti tres reges
Gaspar Melchior Balthazar
Orate pro nobis nunc et in hora
Mortis nostrae.*

Ces billets ont touché aux trois testes des S. S. Roys à Cologne. Ils sont pour les voyageurs, contre les malheurs de chemins, maux de teste, mal-caducque, fièvres, sorcellerie, toute sorte de maléfice, mort subite.

The influence of Jacques Gaffarel and his followers upon the use of talismans has been remarked; charms and a book of astrological figures were given to the Duke of Monmouth when he was in Scotland, and were found upon his person when he was taken prisoner in 1685.³ An interesting book, *Curiosus Amuletorum Scrutator*, by Jacob Wolff, was published at Frankfurt in 1693. It gives a very elaborate list of amulets of all kinds under the diseases and misfortunes they are to alleviate. The continuity of their tradition with that of the Middle Ages is shown by such a device⁴ as a Tau cross inscribed INRI with a scroll on which is written DEI TETRAGRAMMATON, with EMANUEL and ANANIZAPTA DEI on the back.

In the following century magical jewels are recorded much more rarely and in quite a different spirit. For the most part such records come from remote country parts, and are made with the unbelieving care of the modern anthropologist. A

¹ Ure, *Rutherglen and East Kilbride*, 1793, p. 220; *Proc. Soc. Ant. of Scot.*, xxvii, p. 454.

² *Gentleman's Magazine*, xix, p. 88.

³ Rose, *Observations*, p. 204; quoted Dalyell, *op. cit.*, p. 144.

⁴ Plate vi, No. 2.

typical instance may be taken from Richardson's *The Great Folly . . . of Pilgrimages in Ireland*, published in 1727:¹

'At Cranfield, in the parish of *Drumaul*, in the County of *Antrim*, there is a South running Spring of common Water, said to be consecrated to St. *Colman*, a famous *Irish* Saint. Pilgrims go to it on *May-Eve*. They empty & clean the well in the twi-light, stay all night about it, saying a certain Number of *Paters*, *Ave's*, & *Credo's*. In the Morning they find small transparent stones of an *Amber* Colour in the bottom of the Well, which (if you believe them) grew there the night before, & will preserve those, that carry One of them about them, from any loss by fire or water. These Stones are to be found there at any Time, yet the Natives thereabouts will not be convinced of it.'

The medicinal use of jewels found a wider acceptance. The token of Basil Burchell, of 79 Long Acre,² describes him as 'Sole Proprietor of the Anodyne Necklace for Children cutting Teeth', and the *Musaeum Britannicum* published by J. and A. van Rymsdyk in 1778 mentions³ 'The famous Cordial Medicine called Gascion's powder . . . which consists of Oriental Bezoar, which is the chief, White Amber, Red Coral, Crabs eyes, powdered Hartshorn, pearl, & Black Crabs Claws'. But at that date belief in the virtues of gems was nearly extinct; the authors add that the composition 'is only dearer but not better for having in it the Oriental Bezoar & the Pearl'.

¹ p. 65.

² Atkinson, *Middlesex*, 179-93 B; Dalton and Hamer, pt. v, 258-74 B.

³ p. 49.

IX

THE AGE OF CRITICISM; THE SEVENTEENTH AND EIGHTEENTH CENTURIES

MAGIC is not only a heresy subversive of the security of the state, but is also, on its malevolent side, criminal in intention if not in effect. First indicted under Augustus, it has since been enacted against by almost every community that has shared in the inheritance of Roman law. But magical jewels are one of the most harmless of its manifestations, sanctioned by the tradition of ancient medicine, beneficent in their intention, and independent of the agency of any evil spirit for their virtue. None the less, they early came under the ban of the Church; the Council of Laodicea in 335 decreed (Canon 34) not only that priests and clerks must be neither enchanters nor 'mathematicians'—that is, astrologers—but also that they must not make or wear amulets, for these were 'fetters of the soul'.¹ Their medicinal use, however, was never challenged, and we have seen how the popular tradition of the virtues of jewels and engraved stones was accepted with few reservations by the clerical writers of the Middle Ages. Even the theory, upheld by the University of Paris in the fourteenth century,² that a pact with Satan was inherent in all magic did not affect the orthodoxy of these beliefs; for magical as we may consider the properties then ascribed to gems, they yet formed a part of the science and not of the magic of the Middle Ages. Therefore until that science was subjected to the less credulous minds of the later Renaissance these beliefs were secure from criticism.

One of the earliest manifestations of the application of this critical spirit to the subject appears in the *De occultis*

¹ Kunz, *Curious Lore of Precious Stones*, p. 42.

² Lea, *History of the Inquisition in Spain*, iv, p. 207.

Pharmacorum Potestatibus of Thomas Erastus of Heidelberg, published at Basle in 1574. He there writes:¹

‘Obstupeo quoties tales nugas ab eruditis recenseri pro veris lego. Minus miror eos de illis addubitare, de quibus periculum facere non aequè facile possunt. Innumeri lapilli sunt, quibus admirandas vires multi adscripserunt. Si experiri velis, nihil illorum quae promittunt plurimi de ipsis scribentes, praestare cognosces. Hoc si obieceris harum rerum admiratoribus et assertoribus, respondent adulterinos esse. Et cum hoc non possunt responso in veris eludere, Albertum Magnum (in istis rebus mire superstitiosum philosophum) adducant afferentem, senio confectos occultas istas vires amittere. Alii ineptius fabulantur, ideo nihil eos agere, quia qui ipsos gestant, scelere flagitioque aliquo polluti sint. Efficaciores reddi, si aqua frigida per multos dies ablavantur, quasi peccatum illis adhaeserit; et inquinatio per aquae ablutionem crebram detergi tandem possit. Recte profecto ille monuit, eum qui praeclarus esse medicus cuperet, non hisce, sed agentibus per qualitates cognitatas, considerare debere.’

Ten years later, Scot in his *Discoverie of Witchcraft* states² that he considers ‘many things most false and fabulous are added to their true effects’, and gives, in a somewhat incredulous spirit, a brief list of stones and the virtues ascribed to them. Coral, he writes, ‘preserueth such as beare it from fascination or bewitching, and in this respect they are hanged about children’s necks. But from whence this superstition is derived, and who inuented the lie, I knowe not: but I see how reddie the people are to give credit thereunto, by the multitude of corals that waie employed.’ He further discusses the use of amulets:³

‘Argerius Ferrarius, a physician in these daies of great account, doth saie,⁴ that for so much as by no diet or physicke anie disease can be so taken awaie or extinguished, but that certeine dregs and reliques will remain; therefore physicians use physicall alligations, appensions, periapts, amulets, charmes, characters etc. which he supposeth may do good, but harme he is sure they can do none, urging that it is necessarie and expedient for a physician to leave nothing

¹ p. 94.

² p. 293.

³ p. 239.

⁴ *De medendi methodo*, 2, cap. ii, de Homerica medicatione.

that may be devised for his patients recouerie, and that by such means manie great cures are done.'

While not denying them all powers, he adds: ¹

'I onlie saie that those amulets which are to be hanged or carried about one, if they consist of hearts, rootes, stones, or some other metall, they maie have diuerse medicinable operations; and by the virtue giuen to them by God in their creation, maie worke strange effects and cures; and to compute this virtue to anie other matter is witchcraft.'

He utterly condemns the amulet of a purely magical character: ²

'The words and other the illusions of witches, charmers and conjurors, though they be not such in operation and effect, as they are commonly taken to be; yet they are offensive to the maiestie and name of God, obscuring the truth of diuinitie, and also of philosophie. For if God only giue life and being to all creatures, who can put any such vertue or livelie feeling into a body of gold, siluer, bread, or wax, as is imagined? If either priests, diuels, or witches could so doo, the divine power should be checked and out-faced by magical cunning, and God's creatures made servile to a witches pleasure.'

A similar critical spirit, actuated not by Protestantism but by a zealous Catholicism, inspires the '*Traité des Superstitions* . . . par M. Jean Baptiste Thiers, curé de Champrond', published in Paris in 1679. This condemns ³

'l'abus qui se commet dans les choses sacrées, et particulièrement dans la parole de Dieu, dans les reliques, et dans les Croix, en les portant d'une manière superstitieuse, ou en s'en servant avec des mauvaises circonstances, . . . pour produire des effets qu'elles n'ont aucune vertu ni naturelle, ni divine, ni ecclésiastique de produire . . . Tel est le port des Evangiles, des Reliques, des billets ou brevets, des ceintures et des brasselets sur lesquels il y a des paroles sacrées ou des Croix écrites, avec assurance de ne point mourir de mort subite ni sans confession ni par le feu, ni par l'eau, de n'estre jamais blessé à la guerre, de se maintenir toujours bien dans les bonnes grâces des Princes et des grands de la terre, d'obtenir la santé de l'âme ou celle du corps, ou quelqu'autre effet extraordinaire.'

¹ p. 241.

² pp. 218-19.

³ cap. xxvi, p. 275.

In considering the question of wearing crosses, he writes:¹

'Quoique ce soit une chose louable et pieuse d'en porter sur soy il y auroit neanmoins de la superstition a n'en vouloir porter que de ceux qui serroient faits d'une certaine maniere, ou par une certaine personne, qu'avec l'oraison qui commence Barnaza ✠ Lentras ✠ Bucella ✠ etc., que pour donner quelque malefice, que pour estre preservé de quelque mal, ou que pour chasser quelque maladie par une voie indue.'

He gives a list² of the pronouncements of the Church against talismans and amulets: the Provincial Councils of Milan in 1565 and of Tours in 1583, ordered ecclesiastics to punish severely those whom they found to have made or sold rings or other objects for superstitious or magical purposes.³ The only such ornament he approves is that on which 'le saint et terrible Nom de Jesus, le signe de la Croix ou quelque autre figure ou caractere que l'Eglise approuve y estoit gravé, et que d'ailleurs on les portast dans un entier éloignement de superstition'.⁴ In his condemnation of talismans he also says⁵: 'Il n'en est pas de mesme des Ganahez, c'est a dire des figures naturelles qui se trouuent formées sur des pierres precieuses et communes, sur du marbre, sur du jaspe, etc. Car ces figures n'étant à proprement parler que des jeux de la nature, elles ne sont nullement superstitieuses.'

The growth of medical knowledge had by this time discredited another belief of the classical and mediaeval periods. The '*Dactyliotheca Abrahami Gorlaei . . . cum explicationibus Iacobi Gronovii*', published at Lyons in 1595, remarks in a note on a passage of Macrobius:⁶

'Illud non omittendum, antiquis persuasum fuisse in Annulari digito esse venam quae a corde derivata eo pertingeret, hincque digitum illum prae reliquis magis aurea corona condecoratum, gemmaque addita quo vis earum abdita subsidio huius venulae in cor deferretur, idque muniret adversus venena, pestem aliasve iniurias internas et externas; in quem finem, qua parte inseritur Anulo gemma, ab adverso

¹ p. 278.

² p. 293 et seqq.

³ p. 313.

⁴ p. 310. It is noteworthy that as late as 1742 an edict of Duke Ernst August of Saxe-Weimar ordered the burning of platters inscribed AGLA within a cross. See de Mély, *Revue Archéologique*, 1921, xiv, p. 38.

⁵ p. 308.

⁶ *Saturnal.*, bk. vii, cap. 13.

aurum non habet, quo scilicet ipsam cutem contingeret, promptiusque vires suos fundere posset, cum omnis actio, teste Philosopho, fiat per contactum, sed haec *λῆροι λήρων*. Constat enim ex corporum sectione et medicorum scriptis, non magis Anulari quam aliis digitis a primo hominis ortu concessas venas arteriasve quae a principio suo et fonte in singulas corporis partes distribuuntur ita, ut digitus Anularis in hac partitione peculiari non gaudeat privilegio, aut naturae indulgentia, ut non necesse fuerit ob hanc causam eum reliquis praeferri digitis.'

A fundamental change had meanwhile taken place in men's conception of the universe.

'After a duration of a thousand years, the power of astrology broke down when, with Copernicus, Kepler, and Galileo, the progress of astronomy overthrew the false hypothesis upon which its entire structure rested, namely, the geocentric system of the universe. The fact that the earth revolves in space intervened to upset the complicated play of planetary influences, and the silent stars, relegated to the unfathomable depths of the sky, no longer made their prophetic voices audible to mankind.'¹

The seventeenth century witnessed the gradual merging of this belief into popular doctrine; this, the excesses of the consequent reactionary movement among the latter generation of astrologers and the satire of Butler and Swift, of Pascal and La Fontaine, brought their art and their talismans into disrepute. Moreover the growth of an intelligent archaeological interest in ancient art led men to regard the ascription of magical properties to engraved gems as absurd. P. F. Arpe, in his *De Talismanibus* of 1717 records a sigil for the amethyst, but only on the authority of the *vanitas magorum*: 'si lunae nomen ac solis scribatur in iis, atque ita suspendatur e collo, cum capillis cynocephale et plumis hirundinis resistit veneficiis . . . Prodesse etiam Reges adituris et grandinem avertere, et locustas precatione addita si aquilae in iis sculptantur et scarabaei. Quae quidem scripsisse eos non sine contemptu et irrisu generis humani arbitror.'

De Boot's definition of the supernatural virtues of gems as definitely magical confirmed the stand made by Renaissance

¹ Cumont, *Astrology and Religion among the Greeks and Romans*, p. xvi.

thought against a wholesale adoption of the statements of the mediaeval lapidaries, and his follower de Laet further asseverated his statements. But precious stones continued to play their part in medicine, not only as drugs but even occasionally as amulets. Bacon, in his *Sylva Sylvarum*, declares that 'precious stones may work by consent upon the spirits of men to comfort and exhilarate them'—a statement of which the modern equivalent might be that through them a cure by suggestion might be affected.

Les Commentaires de M. P. André Matthiolus, Medecin Senois, sur Dioscoride, published at Lyons in 1605, gives an injunction to the physician to be careful of the authenticity of the stones he employs:¹

'Au rest, pour le iourd'huy, on met en tous confortatifs et preservatifs, qu'on ordonne pour preserver le cœur contre toutes poysons, et mesmes contre la peste, non seulement les saffirs; mais aussi on y met des esmeraudes, des rubis, granas, hyacinthes et cornallines et sardoines. Et toutesfois le plus souvent les patiens ne s'en ressentent point, pource qu'il y a peu d'Apothecaires qui soyent bons lapidaires, ni qui se veuillent charger de pierres fines. Et par-ainsi les Medecins, à qui l'honneur doit estre pour recommandé, doyuent bien prendre garde a cela; & s'ils sont tels qu'ils doyuent estre, ils auront de lapidaires pour bien cognoistre lesdites pierres.'

A contrary view, however, was brought forward in 1663 by Robert Boyle in *Some Considerations Touching the Usefulness of Experimental Natural Philosophy*.² 'I am not altogether of their mind', he writes, 'that absolutely reject the internal use of Leaf Gold, Rubies, Saphyrs, Emeralds, and other Gems, as things that are unconquerable by the heat of the Stomach.' But he adds: 'I think, that in Prescriptions made for the poorer sort of Patients, a Physician may well substitute cheaper ingredients in the place of these precious ones, whose Virtues are not so unquestionable as their dearness.' He considers the whole question more fully in *An Essay about the Origine and Virtues of gems*. Wherein are Propos'd and Historically Illustrated some conjectures about the Consistence of the Matter of *Precious*

¹ p. 539.

² Second edition, 1664, p. 138.

Stones, and the subjects wherein their virtues reside. By the Honourable Robert Boyle, Esq., Fellow of the Royal Society.'¹ This work not only marks an epoch in the development of the science of crystallography, but also shows the demolition of much of the lore of the mediaeval lapidaries by one of the greatest of the 'sooty empiricists'. The preface of the Publisher to the Reader sums up the argument of the book in language curiously reminiscent of Albertus Magnus' theory of the origin of stones:

'First, that the generality of *Transparent* gems have been once Liquid Substances, and many of them, whilst they were either fluid, or at least soft, have been imbued with Mineral Tinctures, that con-coagulated with them; whence he conceives, that divers of the real Qualities and Virtues of Gems may be probably derived. Secondly, as for the Opaque Gems, and other Medical Stones, as Blood stones, Jaspers, Magnets, Emery, etc., he esteems them to have, for the most part, been Earth (perhaps in some cases very much diluted and soft) impregnated with the more copious proportion of fine Metalline or other Mineral juices or particles; all which were afterwards reduced into the form of stone by the super-venience (or the exalted action) of some already in-existent petrescent Liquor or petrific Spirit . . . from whence may be probably deduced not only divers of the Medical Virtues of such stones, but some of their other qualities, as Colour, Weight, &c.'

Boyle's own preface declares that the absence of authorities on which to base his inquiry troubled him little for two reasons:

'the first, because I remember'd, that several passages, that I had met with about the Virtues of Gems, cited out of divers Authors, were such as I should have much scrupled to vouch; some of them being such as I knew to be false; others, that I shrewdly suspected not to be true, and others that appear'd to me altogether incredible. And the second, because to forbear transcription . . . would best comply both with (my friends') desires . . . and with my design.'

The triumph of Experiment over Tradition had begun; 'Whether my Conjectures and Ratiocinations be as new to

¹ 'London, printed by William Godbid, & are to be sold by Moses Pitt at the White Hart in Little Britain, 1672.'

others as to those I chiefly wrote for, 'tis not my part to determine: only I design'd to suit my Discourse to the *Phaenomena* of Nature without being solicitous with whom I disagree'd or Complied.'

In the book itself he early states¹ the standpoint of incredulity from which he regards, without utterly rejecting, the marvellous properties of precious stones:

'I must at the very entrance of my discourse desire you to take notice, that when I propose my conjectures about the *Virtues* of *Gems*, I do not suppose the truth of all, or so much as the tenth part of those wonderful properties, that men have been pleased to ascribe to them. . . . For my part, I never saw any great feats performed by those hard and costly Stones (as Diamonds, Rubies, Sapphires) that are wont to be worn in Rings. But yet because Physitians have for so many Ages thought fit to receive the fragments of pretious stones into some of their most celebrated cordial Compositions; because also divers eminent men of that profession, some of them famous Writers and some Virtuosi of my own acquaintance, have by their writings, or by word of Mouth, inform'd me of very considerable effects of some *Gems*, (especially *Christal*) upon their own particular observations; and lastly, because . . . I find no impossibility that at least some costly and less hard (though indeed more valuable) *Gems*, may have considerable operations upon humane Bodies, some few of which I have had opportunity to be convinc'd of, I will not indiscriminately reject all the Medicinal Virtues that Tradition and the Writers about pretious stones have ascribed to those Noble Minerals.'

He concludes

'that many of the real Virtues of such stones may be probably deriv'd from the *mixture* of *Metalline* and other Mineral substances, which (though unsuspectedly) are usually incorporated with them; And the *Greatness* of the Variety and Efficacy of those Virtues may be attributed to some happy Concurrent Circumstances of that Commixture.'

He finally states:²

'The rarity of transparent *Gems*, their Lustre, and the great Value, which their Scarceness and mens Folly sets upon them, imboldens some to *say*, and inclines others to believe,

¹ p. 3.

² p. 113.

that such rare and noble Productions of Nature must be endowed with proportionately and consequently with extraordinary Qualities.'

A further contribution to the criticism of the medicinal use of stones was made by the publication of Dr. Slare's *Experiments and Observations upon Oriental and other Bezoar Stones* in 1715. In his preface addressed to the Royal Society¹ he writes:

'I am so far from despairing, that I will not doubt of the good Success of my appeal to this most Sagacious Society, who do never set any Value or Estimate on the venerable Antiquity of an Hypothesis, or the Authority of great Names, to support an error.'

In the preface to the reader² he continues:

'The Authors that write of it (the bezoar-stone) both Ancient and Modern, give extravagant Encomiums of its Vertue, & of its Power to cure Diseases; & the Price it bears at this time in London, being Three Pound & Ten Shillings, the finest Four Pound, equals it with gold, & shews us what Value we have of it here.'

The author goes on to examine bezoar-stone and the other component parts of Gascoign Powder (white amber, powdered hartshorn, pearl, crab's eyes, red coral, and the black tips of crab's claws), and, proving a negative medicinal action for all of them, prescribes chalk and 'salt of wormwood' as the more efficacious remedy.

It is significant that the 1721 Pharmacopoeia of the London College of Physicians includes³ 'Lapides Pretiosi et Medicamentosi', which are to be ground in a mortar and made into lozenges; while in the Edinburgh Pharmacopoeia of 1774 there is no mention of precious stones.

The scientific standpoint of incredulity without experimental proof was unassailable, and in the eighteenth century was as generally held as a credulous belief in the virtues of

¹ p. v.

² p. iii.

³ pp. 41, 153. Precious stones are included in the earlier Pharmacopoeias: e.g. *The Compleat Dispensatory* . . . by Dr. John Schroder . . . Englished by William Rowland, 1669.

gems had been in the Middle Ages. The *Grande Encyclopédie* of 1765¹ gives the opinion :

‘Ces pierres qui sont ainsi inutiles, et que les pharmaciens ont mis au rang des médicamens, sont outre les pierres précieuses, et principalement celles qu’on trouve dans les pharmacies sous le nom de *fragmens précieux*, sont, dis-je, le crystal, le caillou, le bol, le talc, la pierre néphrétique ou le jade, la pierre ponce, l’ochre, l’ardoise, la pierre d’aigle, la pierre d’aimant, etc., toutes substances absolument dépourvues de vertus médicinales ; et la bélemnite, la pierre judaïque, la pierre d’éponge, l’ostéocol, le glossopètre ou langue de serpent, etc., toutes matières qui quoique possédant en effet la vertu absorbante, étant composées en tout ou en partie de terre calcaire, doivent être pourtant rejetées.’

The conclusions of the Age of Criticism are summed up in a sentence of J. and A. van Rymdyk’s *Musaeum Britannicum* of 1778 :² ‘If we take a review or cast up, the sum total of the Magic Amulets, we look on them in no other light than a cloak of Imposition of the Ancient Crafty Druids.’

By the end of the eighteenth century magical jewels had fallen out of use in Britain except among the peasants of the remoter districts. The last fifty years has witnessed a revival of wilful superstition in this country ; many people will now assert that one precious stone brings good fortune, that another is unlucky, or that some trinket is their mascot. These beliefs, however, are not inherited from the mediaeval tradition and are often contrary to it.³ Amber necklaces may still be sold in the chemists’ shops of Mayfair as a cure for croup, asthma, and whooping-cough ; distinguished diplomats may record their belief that black opals bring good fortune,⁴ and the jewellers’ windows may be full of charms and mascots ; but these views are no longer recognized by

¹ xii, p. 478, s. v. *Pierres*.

² p. 46.

³ The belief in the unlucky character of opals is not, I think, earlier than Scott’s *Anne of Geierstein*. I have met people who considered sapphires, once thought the most fortunate of stones, to be unlucky, and have heard of a woman who professed to ‘tame’ her friends’ sapphires by wearing them for a few months.

⁴ Lord Redesdale, *Memories*, 1917, vol. ii, pp. 640-2.

contemporary science, and the doctrines by which we now attempt to explain the relations of the parts of the universe give no explanation of the derivation of the virtues of gems.

It may be asked from what origin so universal a belief arose. It is clear, I think, that certain stones may, from their coldness, have been early used to allay fever or to stanch blood; for the rest, the conscious or unconscious practice of sympathetic magic would make it natural that the hard adamant should prevent defeat, that the clear and beautiful crysolite should rejoice and calm eyes and heart, that the red cornelian and coral should stanch blood, that the ice-like crystal should have power over watery perils and watery humours, that the lustrous carbuncle should repel evil thoughts, that the green emerald should strengthen the eyes, and so on; and the further additions, distortions, and embellishments, both of tradition and of the various attempts to make the traditional lore conform to the scientific and medical doctrines of the time, would serve to account for the many other virtues ascribed to gems. The immemorial belief in their properties, probably originating in the East, found a place in the medicine of Greece and in the magic of Alexandria and Rome. Capable of explanation by the theory of the Four Principles, and of infinite expansion on the fabulous and symbolic side, it was received alike by the scientific, popular, and symbolic writers of the Middle Ages. The astrology of the Renaissance modified the foundations of the doctrine without seriously changing the superstructure; but modern science, gradually developing upon a basis of experiment, criticizing and testing the received belief rather than accepting and explaining it, eventually recognized the whole edifice of the lore of the virtues of gems, constructed with credulity and care by many generations, to be nothing but the airy fabric of a dream.

APPENDICES

NOTE—The following pages are transcripts only: no attempt has been made to emend the texts.

A (p. 21).

- A. Bodleian Hatton 76, fol. 131. Written in France, perhaps at Tours, in the early part of the twelfth century.
 B. Bibliothèque nationale, nouv. acq. lat. 873, fol. 177. Late twelfth century.

Hic continentur epistolae due. quas Euax. Arabie rex misit Tiberio imperatori. De nominibus et virtutibus lapidum qui in arte medicine recipiuntur. qui in orientis partibus inveniuntur.

Incipit epistola prima.

Desideranti tibi scribere a me misteria omnium lapidum quanta generi humano ea sapienti prodesse videantur. negandum tibi non fuit. Tu itaque custodi cum diligentia misterium summi altissimique dei. Hoc enim misterium caeteris aegyptiis litteratis. neque allophilis tradideris, nec cuiquam alii ne ad sterilitatem huius scientiae deveniat Aegyptus. et ne eadem per aliquem concremata incendio conflagretur. aut ne inmissis tedibus in aegyptum. severos omnes efficiat aegyptus dominantes. His aliis traditus non est. nec alii in sua potestate detineant perpetuaque custodia habeant. Iuro autem tibi per summum patrem deum quod meliorem librum aegyptus non habet. cuius iurationis testis est summus deus. Mittam enim tibi bonum solis nomen per quod genus nascuntur. Igitur perpetualiter custodiatur a vobis; prestat enim multum in omnibus actionibus per singulas ierachias quas greci vocant omnium lapidum. Explicit epistola 1. *Incipit secunda epistola.*

Evax arabiae rex Tiberio imperatori salutem. Magnifica

Prologue. 1 A arabis: B rex arabie. 3 A in artem. Ep. I. 7 B videatur. 8 A cum summa diligentia. 11 A ad steritatem. 13 B omits efficiat. 15 potestate ... custodia: page torn in B. 16-17 patrem ... aegyptus: ditto. 17-18 deus ... solis: ditto. 18 B genus noscetur. 19 custodiatur ... prestat: page torn in B. 20-1 ierachias ... vocant: ditto. 21 B Explicit prima. 22 B omits secunda. 23 B Tyberio.

dona tua accepi per centurionem lucinium frontonem nomine quem dignatus es mittere ad me. Et ego tibi invicem misi quodcumque carius per terram in orientis partibus de omnibus lapidibus remediorum nomen existit.

5 I. *De adamante.*

Adamans igitur est lapis colore ferrugineus. splendore cristallinus. durior ferro et optimus: nascitur in india. Secundus post hunc in arabia. caeteri in cipro. preterea in philippo inveniuntur omnes aureo colore et magnitudine
10 propemodum apparentes. Apti sunt vero ad omnem magicam aptationem. et vires easdem habent. Sed a quibusdam idem lapis dicitur amantites. eo quod cogat et perficiat omnia in quibus eum desiderabis. Hunc lapidem adeptus include in nuce argentea. et consecratum porta. et invictum te prestabit
15 et indomitum adversus inimicos. et hostes et maledicos et ad omnes superbos homines. efficiaris universis formidolosus. repelles autem omnem metum a te. et visiones incertorum somniorum. et simulacra et umbras. et venena. et lites. Con-
ficies itaque anulum ex auro. vel argento. vel ferro. aut aere.
20 tortilem et gere circa sinistrum brachium. Hunc enim lapidi magnum est a deo concessum hominibus auxilium.

II. *De Acate.*

Agathen lapis est. potentias habens magnas et optimes. Sed qui similem colorem habet pelli leonis. valet ad scorpionum morsus. Alligatus enim vel illinitus cum aqua. statim tollit dolorem. et viperarum morsus curat. Tritus et super
25 vulnere aspersus. et datus in potionem cum vino sanat. Portatus autem tutamentum erit et facundum et potentem et gratiosum. et suadentem facit eum qui portat. se et robustum
30 et colore bonum facit. deo et hominibus amabilem reddit.

III. *De Allectorio.*

Allectorius lapis invenitur in ventribus gallorum gallinaceorum. cristallo similis aut aquae limpidae. Hunc lapidem qui portat invictus erit a quolibet homine. Iam enim a multis
35 temptatus et probatus est. Nam gladiator et pugnator habens eum in ore suo. a nullo unquam superari poterit. et sine siti

I. 5 A De adamante lapide. 8 B hunc arabia. A in Philippi-
pico. 9 A inveniuntur homines auro. 18 B sompniorum.
19 B aut ere. II. 22 A de Agathen lapide. 23 Agathen...
potentias: *page torn in B.* 23-4 et... qui: *ditto.* 24-5 valet... scorpionum: *ditto.* 25-6 cum... tollit: *ditto.* 26-7 Tritus... aspersus: *ditto.*
30 B et colorem. III. 31 A de Electorili lapide. 32 A Electorius.

permanebit. athletas et aurigas omnimodo vincet. Anulo enim crotoniates hunc lapidem por[fol. 132]tans. nunquam est victus. Preterea multi alii in praeliis eum habentes. fortiter pugnabant. et reges expulsi de regno suo. hoc confisi lapide gestando. non solum suam recuperati sunt dominationem 5 verum alienam adepti sunt. facit etiam securos et gratos et omnibus placentes eum portantes. Preterea circa venerias voluptates reddit vigentes et validos et robustos. Mulieribus etiam portantibus eum prodest. quae volunt placere viris. communis enim est lapis iste. Legatis quoque firmitatem in 10 oratione sua prebet. facit etiam portantem se speciosum et magnanimum. et perbonum omnia proposita optinentem. fortibus tutamentis.

IV. *De Agape.*

Agapis lapis vel achates. potentias habet maximas. sed qui 15 colorem habet pelli leonis similem. Valet ad scorpionis morsum. Alligatus enim vel illinitus cum aqua statim dolorem tollit. Tritus et vulneri aspersus vel cum vino datus in potione viperarum sanat morsus. Portatus facundum. suadentem. amabilem. gratum. potentem facit. 20

V. *De Asio.*

Asius lapis in alexandria tantum modo invenitur. Qui est optimus ad usum medicinae qui est colore candidus. et levis in modum pumicis et veluti pulvis manibus insidens. Alius pumiceus est habens adnationes nigras per altum et 25 superficiem veluti salsedinem scabrosam. et colorem album. Medetur denique fistulis. scrophis. podagris. et alienosas passionibus curat. Cum melle vero putredines circumscribit. datur etiam more electuarii ptisicis. Viscida autem relaxare potest habet autem saporem salsuginosum et nitrosum. 30

VI. *De alabastrite.*

Alabastrites lapis virtutis est laxativae. emollit. denique duritias. et stomachi dolores ceroto admixtus.

4 B expulsi a.	5 B recuperandi sunt.	6 B verum etiam adepti
sunt plurima.	facit et securos et ignaros.	10 B est enim.
B precibus prebet.	A omits se.	11 B bonum propositum.
IV. 14 A de lapide Agape.	15 B vel agates.	16 B leonis similiter.
V. 21 A de Asio lapide.	22 B lapis est.	22-3 A Cuius est.
B adversus medicinem.	24 B pumicum.	25 B habens agnitiones.
27 B fistula.	29 B more electrii ptisicum.	VI. 31 A De alabastro
lapide.	32 B emallis.	33 B et sthoidolis ceroto.

VII. *De Berillo.*

Berillus lapis limphaticus magnus et lucidus et clarus est. subviridis. similis oleo. Sculpi[fol. 132 v.]tur in eo locusta marina. et sub pedibus eius cornicula. et sub genibus poni
5 debet herbae savinae modicum auro inclusum. Gestat amorem coniugii et portantem. maiorem omnium facit. Praeterea ad oculorum vitia valet. et ad omnem valetudinem si aquam in qua missus fuerit potui dederis. ructatus et suspirium et epatis dolorem curat.

10 VIII. *De Calcedonio.*

Calcedonius lapis pertuso aptatus fertur. qui eum portat vincit causas. tricolor est.

IX. *De Colluro.*

Collurus similis est saphiro. verum subalbidus est. colo-
15 rem habet marinum. Aptus est ad interpellationem regum et potentum. Vti debet circa collum pertusatus.

X. *De Corallo.*

Corallus lapis maximas habet vires in magica tractatione et in maiori negotio moventibus. Est enim tenax. et repellit
20 omnia somnia et ludibria suo remedio. Maximum autem tutamentum adversus iram dominorum est. Sculpto in eo nomine noctiluce. hoc est. acate. Signatur autem in eo gorgone persona. Portans autem eum. nunquam capietur ab aliquo medicamento. nec a fulmine nec umbra inmissa. In bello
25 quoque et pugna. maximum adiutorium est. et invictus. et efficax. et impetrabilis erit sine timore. et tristicia securum facit gestantem. & faciliter impetranter. et introitus facit faciles. Praeterea consecratus et contritus. et seminatus cum frumento aut ordeo aut aliquo fructu. admovet de terra gran-
30 dinem. et omnem perniciem et tempestatem. insuper in vineis aut olivetis dispersus. repellit omnes odiosos impetus ventorum. In domo autem positus conservat eam ab omni maleficio et umbris demoniorum et vanis somniis. et fulminum ictibus. Malis vero locis si quis eum habuerit multum erit
35 efficax. resistit autem ventis et tempestatibus. et turbini. Tantam sortitur potentiam iste lapis contra adversas partes.

VII. 2 *B omits* limphaticus. 3 *B* similis oculo. 5 *B* herba savine modico. 7 *B* invaliditudinem. 7-8 *B* in aqua. IX. 14 *A* Collurus lapis. X. 17 *A* de corallo lapide. 18 *B* magna tractatione. 23 *B* Portantes eum. 24 *B* medicamento. *A* fulminea umbra. 26 *B* Impenetrabilis. 30 *B* et insuper. 34 *A* si habueris eum.

Consecratur vero a deo. & sanctis locis hoc tuta[fol. 133]mentum ut sit maximum die ac nocte. hora diurna atque nocturna. bonumque praesidium.

XI. *De capnite lapide.*

Capnites lapis similis est cristallo. sed multum differt ab eo. 5
tutamentum est optimum portantis. obsequentes erga deum et
homines cunctos facit. facundum vero et formosum reddit
gestantem se. Curat quoque ydropicos ligatus in sinistro
brachio. Vtilis autem est ad formidines amovendas. Nam
qui habet eum omnes gentes in gratiam vertit. et iras omnium 10
mitigat.

XII. *De Ceraunio.*

Ceraunium lapidem aegyptii smaragdum vocant. Invenitur
autem in illis locis ubi fulminis ictus fit. Fertur tamen ex
contritione nubium inter se fieri. propter quam causam hoc 15
nomen sortitus est. Hunc si quis cum castitate portaverit.
nunquam ferietur a fulmine. neque domus neque villa in qua
fuerit cum isto lapide. Praeterea si habuerit eum navigans
aliquis non periclitabitur per fulmen vel per turbinem. Mul-
tumque valet ad omnem victoriam. et certamen. et oracula. 20
qui portat eum exsuperabit omnem causam. observatus dat
in somno bona somnia. Tot igitur virtutes habet iste ceraunius
lapis.

XIII. *De Chelonite.*

Chelonites autem lapis est aptus ad praenoscenda futura. 25
habens enim eum sub lingua quodcunque voluerit dicet. Cum
autem eum acceperit aliquis. prius sibi os abluat. sicque sub
lingua deferat. et omnia praedicet. Valet autem haec prae-
nuntiatio usque ad horam sextam. prima vero luna. valet per
totum diem. quinta decima similiter. Decrescente autem luna 30
ante solis ortum. Accipitur autem lapis iste de oculo testu-
dinis indici. Si vero vis scire hoc de eo verum esse. pone
eum super tria thuribula et ignitos carbones appones et sicut
incensum thurificabis. superponens hunc lapidem confiderenter.
nichil enim ab igne patietur lesionis. 35

2 B vel nocturna. 3 B praesidium corallus lapis. XI. 4
B De Chanite. 5 B omits est. 6 B optimum est. 9 B est
autem. XII. 12 A De Ceraunio lapide. 13 B egyptii. 15
B et propter hanc. 16 A portat. 18-19 A omits Praeterea... turbi-
nem. 21 B exuperat. 22 B sompno and sompnia. B omits iste.
XIII. 24 A omits rubric. 25 A Celonites. 29 B luna vero.
30 A totam diem. B omits autem. 33 A supra. B thur-
ribula. B ignotos. B ab pone. B sic. 35 B am-
bigue.

XIV. *De Chelidonio.*

Chelidonium lapis invenitur in ventribus hyrundinum. Cuius genera sunt duo, niger et rufus, qui tolluntur a capitibus pul-
 5 lorum hirundinum ex nido, et fissis eorum ventribus similiter
 inveniuntur rufi et nigri. Rufus quidem sanat lunaticos et
 languidos et insanos: in panno lineo pu[fol. 133 v.]ro missus
 vel ligatus, et in sinistro brachio egroti circumligatus. Pre-
 terea gratissimos facit portantes se et facundos et amabiles et
 idoneos. Niger autem gestatus similiter negotiis omnibus fines
 10 optimos imponit, et ad omnes iras et minas regum, et domi-
 norum portatus obsistit. Nam qui eum secum habuerit, omni-
 bus placebit, et ad arbitrium suum cuncta perducet. Si vero
 aliquis dolorem habet in oculis, teratur et cum aqua dis-
 solvatur et inunguntur oculi dolentes, sanabuntur. Cum
 15 autem tolluntur lapides isti / cavendum est ne pater aut mater
 prope sint, meliores enim effectus habent. Niger autem in
 panno lineo tincto croco missus / cotidianas, terciarias, quar-
 tanas compescit. Adversus omnes humores aptus est excel-
 lenter.

20 XV. *De Diadoco.*

Diadocos lapis similis est berillo. Vtillimus est divinationibus
 per aquam, et temptationibus umbrarum, plus quam alius
 lapis; preterea effigies demonum omnium diligenter ostendit.
 Ad mortuum ne adhibeas eum, sistit enim defunctis, nam
 25 divinus est et sanctus lapis, et sanctificatur perpetua sanctifica-
 tione.

XVI. *De daphnio.*

Daphnion lapis proficit ad limphaticos et ad demoniosos,
 et ad supereffusionem sanguinis, et ad ydropicos optimus est
 30 si assidue portetur sanctificatus.

XVII. *De chrisolito.*

Chrisolitus lapis lucidissimus est et auro similis, et scintillat
 velut ignis, hic applicitus rasure auri filacterium est, et tutamen
 adversus omnes nocturnos timores, pertusus et traiectus cum
 35 setis asini et in brachio sinistro ligatus: omnia demonia vincit.

XIV. 1 *A* De Chelidonio lapide. 2 *B* Celidonium. 3 *B* rufus.
A omits a. 5 *B* ruffi. *B* Ruffus. 8 *B* se portantes. 9
B omnibus negotiis. 14 *A* et sanabuntur. 18-19 *A* excellentur.
 XV. 20 *A* De Diadoco lapide. 23 *B* effigies hominum diligenter.
 25 *B* sanctificatus. XVI. 27 *A* De daphnio lapide. 30 *B* omits
 si. XVII. 31 *B* crisolito. 32-3 *B* velut ignis scintillat. 35
B sinistro brachio.

XVIII. *De etite.*

Etites lapis maximum tutamen est nature. Hunc enim lapidem primum donavit deus hominibus muniminis gratia et salutis. Quam aquila apportans in nidum suum ab extremis partibus orbis terrarum custodiendorum pullorum suorum 5 causa. Est etiam superscriptus lapis etites colore puniceo. uisu asperrimo. Habet etiam infra se alterum lapidem ueluti pregnans. Vtilis est ergo mulieribus pregnantibus. Circumligatus enim brachio sinistro non permittit feminam abortivum facere. Est autem idem lapis aptus ad velocitatem partus. 10 Nam ad periclitantem mulierem introductus et tritus et super lumbos inunctus et inguines. continuo liberatur. Preterea gerentem se sobrium efficiet. et omnia superantem. rebusque / [fol. 134] familiaribus augebit. et opinionem bone fame prebet. et qui eum geret gratissimus erit. Introitus et exitus eius. 15 qui eum portaverit facit facillimos. Deo et hominibus facit amabiles portantes eum. Infantes et puellas conservat. Hic lapis a polluce et castore valde amatus est. limphaticis et terroribus nefandis facit ne visa somnient. nec frequenter cadant. Si vero suspectum aliquem habueris in domo tua ut 20 tibi veneno nocere velit: pone hunc lapidem in pulmentario / et invita eum ad cenam. si verum fuerit non manducabit. si vero ausus fuerit conari / devorare non poterit. Quod si lapidem istum ex pulmento sustuleris / ille maleficus vel veneficus statim incipiet comedere et bibere alacriter et iocunde. Tantam 25 potentiam habet iste lapis. Iras quoque potentum. potenter avertit. Hic gestatus tutamentum est; hoc pro medicamento utitur aquila / ne aliqua fraus sibi noceat. Hunc enim lapidem apprehendit ex flumine. et imponit eum nido suo ne violetur ab aliqua volucre. Hunc lapidem conservare pro gemma me 30 monuit institor ut omnes gentes inviolatus evadam. et adversarios meos male multatos exsuperem.

XIX. *De eliotropio.*

Eleutropius lapis nascitur in ethiopia et cipro. et libia. est autem colore smaragdino. sanguineas habens venas. Appella- 35 tur autem eliotropius: eo quod vertit solem. Missus autem in pelvem argenteum aqua plenum. et positus contra solem.

XVIII. 1 B ethite.	3 B omits primum.	B gratiae.	5 B
suorum pullorum.	7 B habet infra.	9 A omits enim.	12
B lumbos illitus.	14 A opinione.	15 B gerit.	17 B eum
portantes.	19 B sompnient et ne.	23 B et si.	24 B pulmento
tuleris.	28 A fraus ei.	XIX. 33 A De eliotropio lapide.	
34 B Eleytropius.	34-5 B et est colore.	36 B eleyotropius.	
37 B pelvim.			

vertit eum et facit quasi sanguineum et obscurum. si consecratus est divinam videbit potentiam. Continuo enim pelvis spumare incipiet. et aquam effundere turbidam ut facit aer commotus tonitruis et fulgoribus et pluviis. et procellis. adeo
 5 ut etiam animalia per hanc lapidis potentiam. videntes terreantur admirantes et conturbentur. Tantas virtutes divinitas huic adhibet lapidi. ut qui eum gerit vaticinari poterit futura. et perhenni maceratos profluvio: revocat ad salutem per carmina. Conservat quoque vivendi facultatem et corpus incolume. et
 10 bonam existimationem prebet gestantibus. et omnem veneni oblationem et universi generis terrorem amovet. Nam qui eum gerit decipi non potest. Tanta est huic lapidi a deo concessa gratia: ut omnibus his modis valeat hominibus. Hic enim lapis eliotropius vertit inviolata numina solis. Legitur
 15 etiam de [fol. 134 v.] eo quod per eum evocari possint ymbres de celo. quando deus vult aerem ostendere hominibus bene agentibus.

XX. *De epistite*.¹

Epistites lapis est rubicundus et lucidus. nascitur vero in
 20 chorintho apud templum dei; habet autem virtutes maximas iste lapis. missus enim in aquam ferventem. continuo tepidam eam reddit: si autem diu in ea permanserit omnem calorem auferens frigidam eam facit. Hunc habentes. maleficium removen-
 25 nocivas et locustas. Preterea si quis tenuerit eum in manu dextera contra solem: radios emittit. ignemque vomit. ita ut videntes admirentur. Aptus autem ad potentiores seditio-
 sosque. Nam qui portat eum circa sinistrum brachium. omnes asperitates et omnes turbas contempnit.

30 XXI. *De exeбенio*.

Exhebenius lapis albus est et speciosus. quo solent aurifices aurum limpidare. Curat autem stomachicos. maxime in potu sparsus aque aut vini. Preterea insanos et amentes similiter
 35 mirifice bibitus. non enim patitur diu eos fatigari. Solvit

3 A turpidam.	5 A omits animalia.	B lapidem.	6
B omits divinitas.	10 A prebet gestatus	13 B in omnibus.	14
B eliotropius.	15 A unbra.	16 A aera.	B hominibus
ostendere.	XX. 18 A De epistite lapide.	20 B chorinto.	
23 B maleficum.	26 B ita ignemque vomit ut.	27 A ammirentur.	
28 B in sinistrum.	XXI. 30 A De exeбенio lapide: B De Exhe-		
benio.	31 B Exehenius.	32 A stomaticos.	34 B voluptas.
B eos diu.			35

¹ Hephaestitis.

etiam vesicam et dolentibus aptissime subvenit. Nam gestatus. partum sine egritudine conservat. et velociter parturientes facit circumligatus foemore dextro. Consecratur autem perpetua consecratione.

XXII. *De ematite*.¹

5

Emathites lapis est per ipsum donum nature datum hominibus a deo. et quantum frigoris participat. tantum stiptice est virtutis. Est ergo utilis ad sanitatem et tutamen totius corporis. Valet etiam ad asperas palpebras et hebetationibus oculorum. Quod si simul facta fuerit inflammatio cum asperitate in oculis. cum albumine ovi in cote resolutum inunguntur. 10 aut cum succo fenugreci. Si autem sit inflammatio et non asperitas: in aqua resolutum cum sputamine inungimus. aut infundimus. Quod si virtutem medicaminis suffert qui curatur. spissius inungimus. et melius operatur cum aqua in 15 cote olearia resolutus. facit ad eos qui sanguinem exspuunt. vel cum suco mali punici et multum eos iuvat. Nam et omne ulcus superilli[fol. 135]nitus sanat. Resolutus in aqua solus ut supra profluvium mulieris stringit. quia stiptice est virtutis. Pulvis vero ex eo subtilis reprimat supercrescentes in vulneribus 20 carnes. et in oculis ulcera cicatrizat. et rixin sanat. Cum vino veteri potatus solutiones stringit. Ad omnem utilitatem corporis utilis est: omnemque dolorem idonee curat. Morsus serpentium cum aqua eximie curat. Contritus cum melle attico non fumigato: et inunctus: omnem oculorum dolorem aufert. 25 Infusus cum lacte muliebri oculos dolentes peragorizat. Vulnus etiam aspidis sanat. Fluxum etiam sanguinis sine intermissione. locis fluentibus positus sanat. Circumligatus autem umbilico vel inguine aut preputio. Lapis iste vel unctus vel potatus. perstillicidium meiantium urinam. et lapidem vesice persolvit 30 et sanat. Ematites utilis est fragilis et durus equali colore. rufo vel ferrugineo. habens sorditias. aut venas varias. Virtus est illi stiptica et leptintica. et staltica. et smictica. Cum melle vel lacte mulieris tritus vel inunctus. aut inmissus draconata et caligines oculorum detergit et sanguinem suspendit. 35 Pulverizatus et cum vino bibitus / dissuriam aperit. et fluxum mulierum sistit. Vtilia colliria ex ipso fiunt doloribus oculorum. Comburituro vero ut lapis frigidus. ex vino superfus.

3 B femori. XXII. 5 A De ematite lapide. 6 B []atites.
 B datum nature. 7 B quantum friget. 7-8 B virtutis est. 9
 B Valet enim ad aspersas palpebras fractas. 12 A autem cum suco.
 25 B suffumigato. 26-7 B Vulnus . . . et fluxum. 31 B frigidus
 et durus. 32 B rufo. 33 B stipticam et leptinticam et stalticam
 et smicticam.

¹ Haematitis.

XXIII. *De Frigio.*

Frigius lapis est quo in frigia infectores utuntur. unde. et nomen accepit. utilis est colorem habens viridem. et qui mediocriter est gravis. et varias venas habet sicut cathmia.
 5 Comburitur vero sic. Refusum vino odorato in carbonibus vivis mitte. et flabella quamdiu colorem faciat rufum et secundo perfunde vino. et carbonibus revoca. hoc ter facere debes. observandum vero est ne se frangat. aut nigrescat. Virtus est illi crudo et cocto stiptica. et anacartica et scarotica. et septica.
 10 cum ceroto cumbustionibus mede lavatur sicut cathmia. pro pustulis / tere in mortario et misce rosaceum cum medullis et induc. et si fuerint pustule aquatiles cum vino induc.

XXIV. *De fenicite.*¹

Fenicites lapis similis est avellanę feniceę. id est dactile
 15 subrubeus vero vel sanguineus: est mirabilis in manu sinistra. gestatus ad tristiciam vel causas. vel actiones removendas.

[fol. 135 v.] XXV. *De Gagatromeo.*

Gagatromeos lapis est similis colore capreolę agresti. Quicumque eum portaverit in navali bello et in alio prelio fortis
 20 erit. et inimicos superabit. hoc autem lapide usus est hercules assidue et semper victor existebat. Deponens autem eum statim vincebatur.

XXVI. *De Galactide.*

Galactides lapis colore est cinereus. hunc quidam vocant
 25 anancitem. alii leografeten. egiptii. smaragdum. alii galbaniten. magi egiptii senechiten. Efficit autem omnia quecumque solus destinaveris. potenter. Hunc lapidem appellavit sidostenes magister magistrorum omnium: lithargum. quasi omnium oblivionem malorum. hoc dedit sibi nomen super omnia nomina.
 30 Facit etiam utilem negotiationem. Laudavit eum titan quod nullus alius lapis tantas virtutes habet. Non enim ex auditu eum sed magis ex scriptura experti sumus. et omni actione magicę mirabilis est. Solum istum lapidem repertum efficacissimum omnium et potentissimum. philosophi ęternis laudibus decoraverunt. Est enim gustu dulcis. qui tritus lacteum colorem

XXIII. 1 *A* De Frigio lapide.2 *B* Erigius est lapis. *B* utantur.4 *B* venas varias.6 *B* ruffum.8 *A* omitsthe first est *B* an nigrescat.9 *A* anartartica.10 *B* medetur.XXIV. 13 *A* De fenicite lapide: *B* de fenizize. 14 *B* Est similis Fenicites. *A* dactilo.XXV. 17 *A* De Gagatromeo lapide.20 *B* hunc autem lapidem. XXVI. 24 *B* cireneus. 24-5 *B* vocatur anancitem, alii galbaniten, alii leografiten, egiptii smaragdum. 31*A* tantas vires. 32 *A* actioni. 34 *B* potentissimum omnium.35 *B* dulcis gustu.¹ Phoenicitis.

emittit. Vnde et sic dicitur. post balneum ieiuno datus cum
 mulsa vel aqua mulieribus copiam lactis ministrat. vel ex
 lana gravide ovis facto filo et pertusato lapide circa collum li-
 gatus. Similiter ovibus lacte carentibus. ut satis habeant sic age.
 lavato ovili. circumsparge salem. oriente sole habeas autem 5
 contritum lapidem tenuiter cum aqua inde circumsparge ovile.
 et videbis quam plurimum eas lacte abundare. et si scabie
 laborabunt et hoc eis feceris: sanabuntur. et fecundiores erunt.
 Letheus vero vel lethargus dicitur. propter hoc quia pre-
 cedentia mala in oblivionem adducit. Quicumque eum consecra- 10
 tum portat ut infrascriptum est si regem vel principem vel alium
 aliquem offensus fuerit. in oblivionem omnia preterita adducit.
 et gratiosum reddit. et peritum facit. et facundum. efficacem.
 et impe(t)ratorem. et persuasorem omnibus hominibus. et deo
 placabilem. et sacrificiis que deo fiunt gestatus: excellenter 15
 aptus est. propitium enim viribus suis et benivolum deum
 hominibus facit. Invidie et fascino resistit dolorem dentium
 circumligatus liberat. Aptatus autem pueris et infantibus non
 permittit eos macerari. et si quando minatus eis fuerit horridas
 minas. resistit. melius quam aliud tutamentum. preterea elatos 20
 eos constituit. Quod si mulieri difficulter parturienti filo facto
 de lana ovis [fol. 136] fecundę. ligatus circa dextrum femur
 continuo sine dolore pariet. et omnes preteritos dolores oblivioni
 tradit. Dicitur etiam craterites. quia tenax est. Nam ante iudi-
 cum presentiam altercantes: gestantes eum vincere facit. Neve 25
 mireris hunc lapidem tot habere nomina. cum tot et tam varias
 virtutes habeat.

XXVII. *De Gagete lapide.*

Gagates autem lapis invenitur in licia circa ripam fluminis
 quod ganges vel gangetes appellatur. Colore niger et aridus 30
 et quasi luminosus mediocriter. levis valde est. cuius est melior
 qui facile exarserit igne. et odorem aspalti habebit. Virtutes
 habet plurimas et magnas et optimas. Aqua enim solutus
 dentes mobiles confirmat. Mulieribus menstrua provocat si
 teratur lapis et super carbones aspergatur ardentes ut vaporetur 35
 interius. circumtecta pannis. sic sine dolore. et sine noxa
 purgabitur. Si quis autem mancipia vult emere hoc lapide
 trito suffumiget. et statim videbitur si caducus vel lunaticus
 fuerit. Ad rigores precordiorum. et dolores et eversiones

1 B ieiune. 3 A ligatur. 5 B sale. 7-8 B habundare et
 sic scabie liberabunt et si. 10 A Quique. 12 A offensum.
 B reducit. 17 B dentium dolorem. 20 B prelatos. 23 B pariet
 sine dolore. 24 B cum terites. tenax. XXVII. 29 B in sicilia.
 32 B aspaldi. B habebant. 34-5 B et si teratur. 38 A sub-
 fumiget.

facit. incensus serpentes fugat. et epilepticos prodit. Incenditur et in aquam mittitur. et per triduum de eadem aqua potui detur parturienti. liberabitur. Demonibus et omnibus maleficis resistit. virginitatem deprehendit. Fictilia vasa ex eo depicta. non delentur. preterea omnes fraudes et ligamenta omnia dissolvit et dirumpit.

XXVIII. *De Iaspide.*

Iaspis lapis multis locis nascitur. et multorum colorum est. Omnium autem optimus et ualidissimus. omnium in colore est lucidissimus. perfecte tamen consecratus et caste portatus febres fugat. Iaspis lapis et calcedonius dicitur. colore est viridis. Si sanctificatus fuerit et circumligatus. aquaticos curat. preterea qui eum portaverit a pueritia. nunquam mergetur neque vexabitur. Pulchrum quoque facit gestantem et fidelem et potentem et omnia perficientem. Sculpere oportet in eo martem armatum aut virginem stolatam cum veste circumfusa tenentem laurum. Consecratum enim est perpetua consecratione.

XXIX. *De cristallo.*

Cristallus lapis vires habet stipticas. quidam autem eum dederunt tritum cum melle: ad bibendum ad generandum lac.

XXX. *De Lignite.*

Lignites lapis est speciosus. colore subvitreo. set mundo. adversus nyctalopas. id est apud nocturnas apes. hic est stricas. sive cavanus aptus est / [fol. 136 v.] portatus collo idonee. persanat enim omnes. preterea missus in panno lineo. et in fronte ligatus fluxum sanguinis stringit. Sciens autem omnia predicere qui eum portaverit. et prohibebit infirmos aliena loqui et languores expellit. circumligatus nervos et verrucas corporis sanat. applicatus eidem parti ubi est dolor. Insuper si quis consecratum eum habuerit. et domus aliqua accendatur casu. continuo extinguetur incendium. Est autem lapis iste sic a deo honoratus.

XXXI. *De Liguero.*

Linguros lapis optimum tutamentum est in domo set et pregnantibus et infantibus ne timeant iuvat. Resistit autem et morbo regio portatus aut contritus cum vino.

1 A epilepticos.	3 A et liberabitur.	XXVIII. 7 A De
Iapidibus lapidibus.	11 B omits febres.	B lapis qui et. 13
B portat.	14 B omits facit.	XXIX. 19 A omits rubric. 20
B stipticas habet.	XXX. 22 A omits rubric.	23 A omits est.
24 B nictalepas.	B strigas.	29 B verucas.
37 B potatus aut tritus.		XXXI. 34 A omits

XXXII. *De Lince.*

Lincis lapis quem multi ligurium vocant. mox ubi minxerit linx lapis fit. qui electrum dicitur. dolorem stomachi com-
pescit. ventris abstinet reumatismum.

XXXIII. *De Lithargiro.*

5

Lithargirum nascitur ex harena molipdinis que combusta
liquescit et sic refunditur. Multi ex argento hoc faciunt et ex
plumbo. Melius tamen est atticum. Secundum hispanum:
tercium siculum. quia ibi plumbum abundat. Rufum vero et
limpidum crisitis dicitur. Exalbidum autem argiritis quia ex
argento fit. Virtus est ei staltica id est strigida. et stiptica
alta vulnera replens et superfluas carnes vulneribus crescere
non consentiens. et cicatricem ducens. Comburitur vero sic.
Frangere lithargirum sicut nuces et pone super carbones igneos
donec ignescat. et depone et terge sordes illius et reponere.
Multi vero aceto aut vino extinguunt. et ter coquunt et reponunt.
Lavachra sicut cathmia exalbatur vero sic. Accipe argiritidis
libram .i. et frange sicut fabas et mitte in cacabo novo cum
aqua et tritici albi libram i. et ordeï libram i. et liga in
lintheolo et sic pendere fac in caccabo tam diu quam diu
ordeum se erumpat et post hec refundens in caccabo liqua
triticum. separans spumam argenti et missa aqua tere diligenter
tota die. et sero liqua. et post hec adde calidam. et dimitte
tota nocte hoc fac diebus sex. Ista vero confectio spume
argenti utilis est confectionibus colliriorum. et cicatrices
corrigit. Rugas. vultibus infricata tendit livores co[r]poris
emendat.

XXXIV. *De Magnete.*

Magnes vel magnetes lapis gignitur atque inuenitur circa
litus oceani apud ragodiatas et in india. ab inuentoribus autem
sic vocatus est. Est autem colore [fol. 137] ferrugineus.
magnas habens in se virtutes. veluti spiritum in attrahendo
sibi ferrum et retinendo. Inuenientes autem eum colchis.
dicunt hoc lapide usum esse in magica actione. quendam
virum magum nomine. de endon vel derineodon. Post eum

XXXII. 1 *A omits rubric.* 2 *A ligurum.* 3 *A omits linx.*
4 *B reumatissimum.* XXXIII. 5 *A omits rubric.* 6 *B arena*
in olimpidis. 8 *B atticum.* *A hispanum.* 9 *B tercium cir-*
culum. *B Ruffum.* 10 *B argitis.* 11 *B id est frigida.* 14
B ignitos. 15 *B ignescatur.* *B depone tergeque.* 16 *A et*
vino. 17 *B Lavatra.* *B et exalbatur.* *A argiritidos.* 19
B omits et ordeï libram i. 22 *A spumas.* 26 *B livoris.* XXXIV
(*B XXXVII*). 28 *A omits the rubric.* 33 *B omits sibi . . . retinendo.*
35 *B Demendon.*

circe filia solis. deinde medi per omnem regionem suam. eo
 usi sunt et experti. hic lapis claritatem habet duodecim signo-
 rum. Propterea hæc omnia: magi certificati quod maximas
 haberet potentias. sic adinvenerunt quod temptarent uxores
 5 suas si dilectionem erga seipsos aut benivolentiam custodirent
 vel haberent. quod bene perceperunt. Dormienti vero uxori
 sub capite latenter posuerunt lapidem istum. et si quidem erat
 casta ab altero viro ita accedebat ad maritum suum amplexans
 eum voluptabunda somnio. quasi impulsa per aliquem. Quod
 10 si cum altero coierat viro tantam vim alicuius odoris fetidissimi
 lapis emittebat. ut de lecto in terram caderet mulier tacta.
 Concordiam quoque secum habet sic. Multas enim mulieres
 per rixam a maritis suis digressas reverti coegit. et diligere
 eorum matrimonium. Sicque uxoribus earum maritos resti-
 15 tuit. Gratosum et obsequentem et iocundi sermonis por-
 tantem se []. certe magnopere subvenit populis contionan-
 tibus persuasionem enim prebet eis et decorem sermonis
 verborumque facultatem. et victoriarum recuperationem. Ad
 sacrificia magnorum aptissimus est hic lapis. Exaudiet enim
 20 deus eorum vota. Ideo sacrificantes et precantes gestant eum.
 Fures autem cum volunt alicuius domus bona diripere. vel
 pretiosa intrant domum. et in quatuor angulis domus. car-
 bones vivos ponunt et superaspergunt lapidem in minutum.
 quasi sit thus. et sic transuertunt mentes et oculos in domo
 25 iacentium. ut timore nimio confusi fugiant domum putantes
 ruere. et sic omnia possunt auferre quæ in domo sunt. Vires
 habet preterea purgatorias. et ideo ydropicis cum mulsa datus.
 et grassitudinem deducit humorum. omnesque per ventrem
 eicit. tritus et combustionibus super aspersus eas sanat.

30 XXXV. *De Mnonio*.¹

Memnoius lapis maximos habet actus et validissimos. Venena
 apparatus. et morbos et languores et timores et inimicitias ex-
 pellit. Fidelem vero et firmum et eloquentem et modestum et
 ingressus et egressus faciles circa omnia efficit gerentem se.
 35 quin etiam / [fol. 137 v.] invictum in honore et in omni certamine.
 Et ne mireris quod tantas vires laudans eum habere
 tibi scribo. multi enim reges et potentes experti sunt eum
 adversus hostes. et validas pugnas. Viri fortes et gladiatores
 in arena. et adthlete victoriæ gloria graciaque experti sunt.
 40 Set et multi apud iudices. capitales causas habentes usi sunt

5 *B* an benivolentiam. 9 *B* sompnio. 11 *B* leviter tacta.
 13 *B* cogit. 17 *A* eis eis. 25 *B* nimio concussi. XXXV
 (*B* XXXIV). 30 *A* omits rubric. 34-5 *B* omits gerentem ...
 invictum. 39 *B* adlete.

¹ Memnonius.

eius efficatia. habet autem iste lapis maximum naturę munus semper vincendi hoc autem usus lapide. omnia quę dico superabit. et omnes iras effugiet. et naufragio fractus enatabit. neptunum et nereum deos maris contempnens. Multi etiam eum gerentes causa victoriae optinuerunt valentiores. esse. 5

XXXVI. *De medo.*

Medus lapis niger est tritus autem emittit croceum colorem. multas bonas et malas potentias habet. Hic ergo lapis tritus super coticulam medicinalem cum lacte mulieris quę semel et primo partu masculum peperit. et inunctus: albugines oculo- 10 rum curat. et omnium oculorum dolorem si etiam desperatus fueret [*sic*] ne ulterius videat. et persanat. Preterea podagricos eodem modo cum lacte ovis tritus quę semel genuit masculinum fetum unge. et sanantur. Renes et anhelitus et omnes interiores corporis partes omnino curat. Hoc me- 15 dicamen maximum est et a multis probatum. preparatum habere debet eum volens in vase vitreo aut argenteo. et ieiune de eo operari. Ad vindictam vero lapidem istum similiter super coticulam medicinalem tere. et cum aqua dilue lapidem et cotem. et da cuilibet ut faciem suam inde lavet. et exsic- 20 cabitur. si quis autem ex eo biberit pulmonem euomet. oportet dare bibenti paululum ne sacietur. Hic lapis inventus est a medicis apud medorum regionem unde et vocabulum sumpsit. Nascitur vero in locis ubi est fluvius qui dicitur phasin. 25

XXXVII.

Melas lapis habet modicas scintillulas in se. et dicitur syrtis. Causam dicendi benedictionem. et impetrationem. et victoriam facit. Omnem inquietudinem inimiciarum demoniorum maleficiorum magorum. coinquinationum. pollutionum. 30 precesque malorum. incantationum et odium cęteraque mala a corpore expellit. Est autem lapis iste consecratus deficiente luna. a .xvii.^a die usque ad .xxx.^{am}: eo utere. Crescente vero luna: usque ad .xv. diem non utaris.

XXXVIII. *De Geratite.*¹

35

Niger autem lapis qui gerachites vocatur: in primis numeratus et probatus est a magis. Est autem medicis idoneus in rebus prenoscendis hoc modo. ubicumque volueris aliqua pre-

1-2 *B omits* maximum . . . usus lapide. 3 *B* fractis. XXXVI
(*B* XXXV). 6 *A omits rubric.* 14 *B* helitus. 15-16 *B* medicamentum
17 *B* an argenteo. 19 *B* dilue lapis. 22 *B* Oportet autem bibenti
paululum dare. XXXVII. 27 *B* sirtis. 29 *B* immiciarum.
XXXVIII. 35 *A omits rubric.* 36 *B* qui et geratites.

¹ Hieracitis.

dicere: ablue os tuum bene [fol. 138] et in cera cum melle optimo sub lingua pone lapidem et scies et dices omnia futura que de te aliquis scit vel cogitat. In impetrationibus maxime congruit. Gestanti enim eum nemo aliquid contradicet postulanti. Verum amatoria et persuasoria: necessario efficit verba super alios lapides. Alliga ergo lapidem tibi et vade ad puellam vel feminam. et non tibi contradicet. Quod si scire volueris hæc de eo vera esse: sic proba. Lacte et melle commixtis circumline habentem lapidem super se. et non insidebit musca super eum. Item de eadem mixtura circumline alterum quemcumque volueris: non habentem lapidem. et videbis quanta multitudo muscarum adherebit sibi. Super hæc gratissimos facit portantes se et facundos ad omnes homines. Set omnes o imperator piissime legentes hæc non credunt veras esse potentias lapidum quas non experiuntur. Omnia tamen dicta a nobis et scripta ita evenient si fuerint sanctificati lapides. sicut oportet.

XXXIX. *De Orite.*

Orites vero lapis est colore nigerrimus. rotundus. quem quidam sideritem vocant. Aptus est autem ad morsus bestiarum curandos. tritus. et cum rosaceo illinitus super vulnera a bestiis facta citissime curat. set nervos coniungit illius cui alligatus est. Qui vero eum secum habuerit: omnem bestiarum impetum superabit. Hunc magi portantes per solitudines desertorum iter agentes non vexantur neque appetuntur a feris. Est vero alter orites lapis viridis subcandidas maculas habens hunc autem lapidem an verum sit probare volens: pones multos durissimos lapides in maximo igne et inter eos istum appone et tam diu dimitte. ut comburantur alii lapides: deinde si hunc integrum inveneris et inlesum. habeas eum carum et tutamentum quia omnia pervincet. omneque periculum. et omnem timorem effugabit. Est etiam tertium genus istius lapidis quasi lamina ferrea ex uno latere levis. ex altera parte velut acutos habens. clavellus. maximas habet virtutes. Nam reges concubinis suis ut non deformentur aut ut filios minus generent aut minus pariant vel non concipiant: hunc lapidem circumligant eis. Tantam efficaciam sterilitatis ei dedit natura ut si gravide mulieri imposueris: coget eam per posteriora infantem eicere.

2 A pone lapis.	3 B In petitionibus.	6-7 B ad puerum sive ad feminam.
7 B contradicet.	14 B omits o.	XXXIX. 18
A omits rubric.	20 B sideritem.	21 B tritus cum rosaceo et illinitus.
30 B omits integrum and et.	B Habeto.	33
A lammina.	35 B deferantur.	38 A omits mulieri.

XL. *De adonzelicio.*

Odontelicus id est lupi dens: prosper et utilis militibus et venatoribus [fol. 138 v.] et aliquid rapere volentibus et per aquam divinare. aut per sensus volentibus. Positus subter fundum sciphi pro firmamento infantibus tutamentum firmum 5 prebet. Aptissimus autem maxime furibus aliena furari cupientibus.

XLI. *De opzallio.*

Optallius lapis circa oculos efficax est. nam qui eum gerit nunquam dolore oculorum laborabit. Aptus est autem furi- 10 bus ut non teneantur. Obscurat enim visus illorum qui in domo sunt. ne furantes videant. Hoc usi sunt fures furari lapide gestando eum.

XLII. *De Absiano.*

Obsianus lapis facit multa. Nam sicut maiores nostri aiunt 15 de disparibus est lapidibus. Est enim optimus et magnus adversus somniorum incertitudines. Volentibus insuper alios ledere: in hoc eos iuvat precipue. Si quis autem in eo solem et lunam sculperit et gestaverit eum consecratum sic: bonam vitam exiget. 20

XLIII. *De pirite.*

Pirites lapis ex quo eramen fit. eligendus est autem colorem eraminis habens. qui missus in foco frangitur. comburitur vero sic. Melle unctus in carbonibus vivis mittitur. et flabellatur quandiu colorem rufum faciat. Alii vero multis carbonibus 25 ignitis coctum. et secundo melle unctum revocant igni. quandiu se friget et postea eximunt illum. et lavant sicut cathmiam et reponunt. Virtus est illi crudo et cocto. termantica. Caligines oculorum purgat duritiis diaforesin facit et digestionem rei. addita resina carnes purgat vel perequat lapis iste com- 30 bustus a multis difriges dicitur.

XLIV. *De pantheros.*

Pantheros lapis habet plurimos colores. Est enim purpureus. rubeus. niger. pallidus. roseus. viridis. omnes sparsim habens colores dispersos. eum autem mane videre. bonum est. 35

XL. 1 *A omits rubric.* 2 *B Adonzelicus.* 3 *B ad aliquid.*
 6 *B autem est maxime.* XLI. 8 *A omits rubric.* 9 *B Opzallius.*
 10 *B omits furibus.* 12 *A omits furari.* 13 *B omits eum.*
 XLII. 14 *A omits rubric.* 15 *B Absiamus.* XLIII.
 21 *A omits rubric.* 28 *B est crudo illi et cuncta terminantias.* 29
A diaforesun. 30 *A regina.* XLIV. 32 *A omits rubric.*
 33-5 *B omits Est enim . . . colores.*

proficit enim ad victoriam. Est enim invictus et sacer. id est sanctus lapis. Qui ad similitudinem panthere. que omnibus coloribus est picta: dictus est pantheros. propter colores plurimos. Panthera autem est fera degens in ultimis abditis
 5 indie. tantę ferocitatis. quod leones et pardi et tigrides. audita voce illius timore perculsi. macerantur febribus. de aliis feris non est dubium an timeant. necne. [*A blank line follows in A.*]

XLV. *De Selinito.*

Silenites lapis habet similitudinem iaspidis. aptus est fortis.
 10 gravis. lucidus. mirabilis. sanctus. hic enim crescente luna et decrescente crescit et decrescit. Ad multa vero utilis est. [fol. 139] Facit enim ad amorem et causas plurimas. proficit etiam tipicis et languentibus Alligatus autem luna crescente vel minuente: mira facit gestatus cotidie.

15 XLVI.

Smaragdus est lapis pulcherrimus et valentissimus ad omnem aquariam divinationem. habetque persuasionem in omni negotio. Portatus auget substantiam. Castitati corporis et sermonis aptus. Maxime autem subvenit in tempestatibus.
 20 Nam quicumque perfecte conservaverit eum omnimodo optinebit libertatem. Oportet autem eum sic perficere Adeptus lapidem: fac in eo scarabeum sculperet. et sub eo siptacum stantem. deinde pertundatur in longitudine. tunc missus in aurea fibula discoopertus: consecratus est. et facit preparare
 25 quendam locum bonum et honorabis eum tu. et omnes illi qui tui sunt. et tunc videbis gloriam lapidis quantam ei deus concessit.

XLVII. *De Saphiro.*

Saphirus est lapis qui et sirten appellatur. Invenitur autem
 30 in extremis partibus libie circum sirtes. expulsus a mari per tempestates. Idem nascitur in aptileie regionibus apud licaonium dapniceron scribitur in eo integer. sicque potens vincit omnes virtutes lapidum qui maximas habent virtutes. In primisque tutamentis numeratur. Qui igitur habet hunc lapidem
 35 armatus est adversus omnem fraudem et omnia maleficia. et adversus omnes insidias aliorum lapidum resistit. Huius tamen potentia naturalis. dicitur esse divina. Nam si quis a rege vel

5 B ferocitatis est. 7 B omits necne. XLV. 8 A omits rubric. 12 B causas multas. 13 B tipsicis. 13-14 B crescente et decrescente. XLVI. 16 B omits et valentissimus. 24 B et consecratus. 25 B bonum locum. XLVII. 28 A omits rubric. 31 B in paulee. 36-7 B Habens tamen potentiam naturalem qui dicitur.

preposito ponitur in vinculis propter delictum. habeat secum hunc lapidem et tangat de eo vincula : rumpentur sicque faciat ad hostium et exiet nullo eum impediante. et liber ire poterit quocumque voluerit. non impiedietur ab aliquo. Est autem optimus ad amicitiam et gratiam reconciliandam. 5

XLVIII. *Item de Saphiro.*

Saphirus vero lapis. honorificatus est vehementer a deo. dicitur autem a quibusdam. hormis vel orniscus. quia soliti sunt reges hunc lapidem gestare circa cervices suas. maximum enim est tutamentum eis. Inviolatum enim conservat hominem 10 ab omni livore et deo amabilem efficit. et corpora conservat integra. et boni coloris facit. et sudorem nimis fluentem circumligatus compescit. et omnem ardorem in interioribus partibus adherentem amovet ab eo qui eum portat, preterea contritus, et cum lacte superpositus veteribus ulceribus maximam medelam 15 dat. Epiforas oculorum sanat et motum frontis. Si vero in visceribus tortiones fuerint [fol. 139 v.] cum lacte potatus: sanat. et si quis in intestino lesus fuerit. lapide trito. et cum lacte circumiunge intestinum. et sanabitur. Si quis iterum in lingua patitur: eodem modo teratur. et unge linguam et 20 curabitur. Vitia omnia oculorum. vetera contritus cum lacte et inunctus summe persanat. Omnia quoque ulcera sive vetera sive recentia eodem modo contritus curat. Resistit autem vehementer omni invidie. et conservat corpus incolume. Sanctos dei etiam facit propitios. cum impetratione et honore. 25 Facit divinantibus per aquam intelligere sanctam responsionem. Ipsis quoque valde optimus est qui eum habent in perfecta forma. omnia vera divinant et fidelia habentur dicta eorum et placabiles erunt deo et hominibus qui hunc gestant lapidem cum castitate. Scarabeus sculpitur in eo. sicque perfectus est 30 in omnibus que de eo dicuntur.

XLIX. *De sardio.*

Sardius lapis dictus eo quod repertus sit primum a sardis. hic rubeum habet colorem. marmori porphiretico prestantem set inter gemmas sunt eius genera vilissima. et sunt. v. 35

L. *De Crisito.*

Crisites lapis similis est arcui celi. et hic fortis est et gravis. habens in medio apicem tanquam albam et nigram. hic manu gestatus imperatoris proficit ad causas iudicandas.

1 B delictum aliquot. 3 B hostium exiet. XLVIII. 6 A omits rubric. 8 B vel orniscus hormis. 16 A Epyforas. 19 B intestinum sanabitur. 25 B et oratione. 27-8 A imperfecta forma. 28 B omits vera. B sancta eorum. 32 A omits rubric. XLIX. 35 B est eius. 36 A omits rubric. L. 37 A Trisites. B est similis.

B (p. 78).

B. M. Sloane 1784, fol. 1, French, fourteenth century.

Incipit Prologus.

Scripta sunt hec de lapidibus testimonio multorum auctorum perrariarum et clericorum theologorum librorum bibliotece beati Iohannis in apocalipsi Ieronimus Salomonis regis evax qui librum inde composuit que [] transmisit et scies quod plures et aperciores virtutes face [] lapides nisi vestra infidelitas contra iret quia posuit deus virtutem in herbis verbis et lapidibus.

Incipit liber lapidarii.

Precepit Deus moysi quatenus xij lapides preciosos poneret in uno paramento facto de auro et filo habente iijor palmos in longum et quatuor in latum et quod ponerentur per iijor ordines ita quod in unoquoque essent [] tres lapides iijor ordines significant iijor virtutes cardinales prudentia Iusticia fortitudo <temperantia> Precepit ut faceret insculpare arte perrariarum in duabus cathenis xij nomina xij tribuum et quod ligarentur in eadem cathene deaurate ad suspendendum ad collum / et in duabus illis cathenis ponerentur duo chaton de auro in quibus essent site duo oniches una a dextris altera a sinistris. Istud paramentum dei preceptum fuit super pectus aaron qui fuit primus sacerdos legis moysae. ¶ Deus sic nominavit hos lapides et hoc ordine. ¶ Sardo Topasius Smaragdus Rubis Saphirus Iaspis Ligurius Acathicus Ametistes Crisolitus Onichinus Berillus. ¶ Iohannes qui vidit secreta paradisi sub similitudine civitatis Ierusalem ascendentis funda(menta) supra xij lapides nominavit eos sic et hoc ordine. ¶ Iaspis Saphirus Calchedonius Smaragdus Sardoine Sarde Crisolitus Birillus Topasius Crisopasus Iacinctus Ametistes. ¶ Sequitur de [] lapidibus aliorum quorundam nomina habuerunt super pectus aaronidae [fol. 1 v.] ¶ Sardes [] et Alemandrine Jagonice grenia / et simul concreantur. Sed Jaconices grenia et omni horum pretiosior et virtutes habet omnium horum homines letificat / et tenet in fidelitate / et facit oblivisci suum nocitivum / et servat a punctura et contactu venenosorum qui eum defert secure potest transire loca periculosa graciosius receptitur ab hospite / nec facile patitur repulsam. ¶ Iste lapis primus fuit nominatus a deo / quia eius Rubicundus color significat rubicundam terram de qua formatus fuit primus homo uniformis eius color significat peccatum a quo omnes sequaces uniformiter inficiuntur. Iohannes vidit eam sexto fundamento celi quod significat Adam formatum sexto die rubor sanguinem Christi

[] sexto die. ¶ Topaces est de chauve color et []
 plurimarum manierierum / meliores sunt de oriente []
 ¶ De Topasio.

Topasius refrigerat et preservat a morbo qui dicitur filus.
 A topasio circumductus non amplius crescit / si lunatio debeat
 sequi obscura et pluviosa obscuratur si clara clarescit /
 castitatem procurat. Iste fuit secundus super pectus Aaron
 Colorem habet auri et de azur Iohannes vidit istud et significat
 IX ordines angelorum qui plures lapides simul intuetur citius
 dirigit aciem suam super topacium quod significat et super
 omnia magis debemus iactare intencionem nostram super
 celestem vitam / Topasius non tersus nec politus sed qualis
 nascitur melior sed pulcrior / quia celestis vita non que
 apparenciam exteriorem debet sedere in auro.

¶ Esmeraude. Esmeraude vincit virore omnes virores /
 Esmeraude et li praesmes simul creantur / Naturales Esmerau-
 des veniunt de india ¶ Esmeraude servat visum a peioracione
 Nero habuit speculum ex eo virtute cuius presciebat de hiis que
 volebat scire Dat divitias et verbum gratum [fol. 2] et acceptum /
 curat ab emuere Retinet tempestatem / Recipuitur luxuriam /
 Qui eum defert intendit plus regere se munde caste graciose et
 plus curat de salute anime / Iste tercius nominatus a deo
 super pectus aaron / et significat virorem fidei sancte Trinita-
 tis Iohannes vidit eum quartum et significat fidem iiijor
 evangelistarum / Dicit Iohannes quod igitur senes servant /
 Esmeraude super quoddam flumen paradisi in terra de sice /
 hoc genus animalium iiijor habet pedes et duas alas /
 pars eorum anterior quasi aquile / posterior quasi leonis /
 Quoddam genus hominum qui vocantur Arimade vadunt
 armati tempore suo / et querunt et deferunt lapides homini-
 bus pugnantes fortiter cum grifonibus / volentes eos devorare
 Li Arim(ade) significant prophetas patriarchas apostolos /
 Integritatem et virorem fidei servaverunt pugnantes cum
 temptacionibus infidelibus et demonibus / Grifones significat
 demones pugnantes contra fidem / et viros religiosos qui fide
 Esmeraude portare debet attendere virori fidei que non potest
 marcescere et dirigere se ad illam servandam et amandam et
 armatus erit contra demones. ¶ Rubis.

Rubis est rubicundi coloris et vincit omnes lapides Rubicun-
 ditate et sunt puriores uni quam alii / purus et verus Rubis est
 similis carboni ardenti / Dominus est lapidum quia virtutem
 habet omnium xij lapidum speciale habet quia dat gratiam et
 favorem et gaudium / Et omnes eum reverentur / Bestie bibentes
 de aqua in qua lavatur sanantur a suis languoribus / Desperati
 rediunt ad spem eum intuentes. Invenitur in libia in quodam

flumine paradisi / Deus precepit hunc poni primum in Secundo ordine lapidum ut omnes ceteros illuminaret / et significat [fol. 2 v.] secundam legem que illuminavit primam / Omnes lapides illuminat de die et de nocte / Moyses dicit quod significat Christum qui venit illuminare tenebras nostras / Iohannes dicit de Christo quod illuminat omnem hominem venientem et cetera / Iohannes non vidit istum in fundamento celi quia Iesus quem designat qui est unus et ubique in factis suis non habet determinatum locum in gloria. ¶ Saphirus.

Saphirus competit Regali digito / Coloris est quasi celi depurati quo purior est eo verior est / Inveniuntur veriores in libia in harena cuiusdam fluminis orientis prope pericula maris que dicuntur fuces Alii obscuriores in profunda turcia Alii adhuc obscuriores prope pedium tamen virtuosi sunt / Qui verum et purum saphirum <res>picit debet recordari de celo Invidiam depellit cor confortat et membra servat a carcere / Adiuvat ad capti liberationem / et captus debet eum tangere cum quatuor angulis carceris / et cum ferramentis suis / Discordes reconciliat / et sortilegas crudelitates exsuperat / tumorositates / inflaciones apostemata circumcincti sanantur Aquam lotore eius date potui ei qui habet aliquam inflacionem in corpore confert Reprimit calorem acute febris et accelerat crisim doloribus capitis morbo lingue inmundicijs oculorum incedetur / et adiuvat deus eum qui munde fert eum Coloris est quasi depurati et tersi non quia celum alicuius coloris sit sed quia defectus nostri visus cum amplius non potest ascendere / Rediens ad suam naturam oculus Representat sibi ipsi aqueum colorem in fluminum colorem Iste lapis significat altitudinem et nobilitatem Regni dei quia sicut noster deficit aspiciendo in celum / Ita intellegis noster inquirendo et intendendo ad divinam maiestatem et gloriam / [fol. 3] Iste lapis fuit in secundo ordine supra pectus Aaron / et vidit eum Iohannes in secundo fundamento significat secundam virtutem id est spem / Qui defert Saphirum debet esse in bona spe firmus. ¶ Iaspis.

Iaspis invenitur novem manierierum et diversorum colorum in virtutum diversarum Inveniuntur in extremis partibus mundi Qui viridis apparet contra lucem illè melior est / et quando habet guttas nigras quasi dispersas adhuc melior / et qui est viridis habentis guttas rubicundas incisus incisione veteri ille est dominus iaspidum / Valet contra omne venenum / Si aliquid toxicarum affertur ubi iaspis fuerit sudat et omittat / Vnde de suis [] stringit fluxum sanguinis et disfontivam preservat in febre / et ab ydropisi eam cum intuetur contra lucem servatur a fantasmate facit hominem

potentem et amatum Valet laboranti in partu / Verus iaspis viret grosse virore et significat fidem lucalis gentis que credit in patrem et filium et Spiritum sanctum / et ulterius requisiti nesciunt amplius requisiti nesciunt amplius [*sic*] respondere / Moyses dicit quod multum valet contra fantasmata quia Revera fides Catholica destruit fantasma diaboli et hominum hereticorum Iohannes hunc vidit primum in fundamento celi. Quod significat tres virtutes que debent repperiri in unoquoque Catholico Spes fides caritas. Qui iaspidem viridem contra lucem respicit debet esse memor fidei Ihesu Christi. ¶ De ligure.

Ligures lapis est qui invenitur in India in flumine quodam pleno nemoribus que servat bestia dicta linz et repperiunt eum in fundo arene multarum sunt quidem manerierum sed meliores sunt coloris auri mirre et thuris / Quidam tantum sunt aurei coloris quidam [fol. 3 v.] tantum mirre / quidam tantum thuris / Et quidam eorum sunt quorum la giaunort virescit / Quidam quorum color est de letre / sicut dixit Theophilus / et quidam coloris iacincti sicut dicit moyses. Sanat hominem de iaunice assecurat timoroso / Multis guttis medetur dolorem stomachi sedit [*sic*] facit hylarem fluxum ventris stringuit fluxum sanguinis sanat mulieres facit amicabiles et placentiores Ardorem caloris minuit / positus in ore sanguinolentos oculos sanat / et alios oculorum morbos fugat. Alio nomine nominatur Christus eam sic nominavit / Moyses appellat eam fellis silvestrem maneriem bovis / fortitudo animalis est in lumbis suis in umbilico et significat castitatem / Secundum illud Iob [] virtus eius loquens de diabolo in lumbis eius et cetera lumbos dicit quantum ad homines luxuriosos umbilicum quantum ad feminas luxuriosas / Vnde nos debemus habere virtutem huius lapidis in castitate contra virtutem Renum et umbiculi diaboli bestie caventes terram / et fodientes / ut istum lapidem recondient / significant bonos qui colunt terram dei per predicationem / Iste fuit positus primus in tercio ordine lapidum supra pectus Aaron / quod significat predicatorum qui venerunt in tercio tempore scilicet tempore / evangelii. ¶ De acate.

Acates invenitur in flumine quodam qui dicitur Acates / Quidam sunt nigri / quidam albi quidam quasi unius cinguli circumquaque / quidam in modum crucis albe / quidam habentes figuras sicut foliorum arborum regum capitum que natura impressit / quidam virides sicut iaspis guttati guttis rubicundis / et ista maneries a pluribus nominatur elistropia multas habet virtutes. ¶ Item quidam habent nigras guttas et aureas / quidam colorem mirre / quidam de coral guttatum [fol. 4] sicut de auro quidam cerei coloris / Verus acates confortat

veterem hominem et eius visum / sitim sedat / fortem facit hominem et facundum / servat a veneno / et a venenosis / Dicitur et legitur quod quidam est achates quam qui ponit cum quadam herba cornice inclusam et tenet eam in puno clausam fit invisibilis / illa herba sequitur solem / illa maneries achate viridis est guttata rubicunda. ¶ De Amatiste.

Amatiste est purpurei coloris tute approximantur fertei [? fere ei] qui eum defert confortat contra ebriositatem tenet hominem in fidelitate / qui eum defert acceptum habet adventum coram Regibus et principibus et tute et grate operatur sua arte tenet hominem humilem et favorabilem. Ametiste purpurei coloris videri Ihesum Christum in passione sua qui regem se dicebat / unde talis vestis propria est Regum in magnis solemnitatibus. Salamon tali induebatur Ametiste reducit nobis ad mentem martirium et vestem qua viderit induere Christum. ¶ De crisolito.

Crisolitus est coloris aque marine et emittit flammam auream a se circumquaque confert contra timiditates qui eum defert secure intret in multis curis sine contradictione / Dicunt libri quod habet crisolitum perforatum ponens per medium semen asini transire potest per medium demonium et eos fugare debet deferri in sinistra parte Invenitur in ethiopia / Crisolitus habet colorem aque marine et auri quod significat prudentiam eorum qui fideliter et honeste conversantur in seculo ex illa parte qua vertatur auream flammam igneam quod significat sanctas moniciones predicatorum.

[fol. 4 v.] Onichinus sardonius calcidonium simul concreantur Inveniuntur in India et Arabia et sunt diversorum colorum et diversarum virtutum et unusquisque lapis est naturalis Oniches nigri coloris et quando habet verenaes vel cingulos albos vel rubeos / vel subrubeos vel falvos quantumcumque nigri habeat oniches appellatur hominem reddit iracundum et animosum auget pulchritudinem servat sanitatem sompnia adducit et facit hominem loqui de nocte cum amico mortuo et in mane recordatur de eo quo mortuus indiget et de quo indiget / Oniches fuit in quarto ordine super pectus aaron ad significandum iiijor evangelistas qui convenerunt ungulas bovinas leoninas humanas et aquilinas sicut lapis diversorum est colorum.

¶ De Berillo. Birillus est coloris quasi aque quando sol super irradiat Rotundus birilles contra solem proicit ignem et comburit manum tenentis eum contra radium solis / nutrit inter hominem et mulierem (amorem) Aqua ubi iacuit confert oculis suspiria eructaciones febres tollit / et dolorem exprimit / non debet sculpari nec incidi / gratiam dat et hono-

rem / significat primos predicatorum qui predicaverunt baptismum in quibus diabolus nullas formas nec fantasmata potuit imprimere. Christus nominavit eum cum xij et significat xij apostolos Iohannes vidit eum octavum / et significat viij crucem in qua erit Resurrectio Qui iungit eum contra solem sue carni ignis inde exiens inflamat carnem quod significat bonos et iustos qui audientes verba predicationis Iniungunt se eis et inflammantur ab eis. ¶ Dictum est de xij lapidibus quos Christus nominavit moysi et quos Iohannes vidit sustinentes paradisum et virtutes et significaciones viij^o eorum.

Sequitur de quatuor Residuis.

Balais est lapis quem Iohannes appellat Jacincte et Jacinctus appellatur Invenitur inter duo maria in Insula dicta corinthus quasi eiusdem coloris est conrubi idest assimilatus eius colori / emendatur ei claritate ipsius [fol. 5] Dominus est des iacinctes post lou rubri / unde potest dici iagunce Rubi iagunce balais iagunce saphir iagunce grenat iagunce ceterius / Iste omnes maneries possunt dici iagonces Savas aufert cogitaciones et tristitias Refrigerat ab ira et luxuria / Qui portat verum balais et ostendit eum suo inimico statim affectat eum pacificari custodit eum inter hostes / Qui tangit eum cum quatuor angulis domus vel camere vel viridarii neque tempestas neque vermis venenosus approximabit ei ita quod ledat quod mutatur contra pulcrum tempus et contra obscurum / Significat predicatorum qui debent mutare et adaptare verbum suum secundum exigenciam auditorum.

¶ Invenitur in Ethiopia. Crisopas invenitur in India / subviridis est coloris quasi succi porri et circumquaque quasi flammam auream hominem reddit gracious ubicumque venit Color suus significat illos qui veniunt in pena et labore et manent in caritate. Calcedoine turbide albedinis facundum facit / valet ad optinendum casus ostensa adversario et iniuste oppressum liberat / Qui oniche sardoine calcedoine porte / bene est morigenatus nisi peccata sua impediunt attrahit paleam quod significat peccatores et iniungunt eos sibi. Sardoines lapis subrufi coloris tendentis ad rubedinem parum nigram Item sedat hominem facit quiescere de nocte fugat sompnia et fantasmata / vitia et (im)mundicias fugat ab homine Reddit eum castum et verecundum et gracious Sardoines significat illos qui multas penas et miserias sustinent pro Christo et contempnunt se ipsos tanquam peccatores.

[fol. 5 v.] Dyamans lapis est primus nominatus in lapidario evax Regis arabum. Invenitur in India et in arabia sed qui in India dicuntur masle et sunt bruni quasi coloris olei. Qui vero in arabia appellantur feminei et sunt albiores. Nullus

dyamans maior est parva nuce durior est omnibus lapidibus scindit ferrum et calibem. non potest color suus nec pulchritudo animarciari nec poliendo nec aliter / sed ita nascuntur et ita inveniuntur Dat homini fortitudinem et virtutem. servat a gravibus sompnis et fantasmatis et a venenis Servat ossa integra contra omnem casum sive ab equi casu sive arboris sive turris Iracundiam rancorem luxuriam timores nocturnos tollit / servat hominem quo eum invenit quantum ad Reverenciam prudentiam honorem fortitudinem virtutem divitias et si non auget non permittit minui nec facile subcumbit / qui eum defert / valet furiosis valet contra hostes servat semen virile in matrice ita quod infans nascitur membris integris omnibus / debet ferri in sinistra / debet haberi fideli acquisitione et honeste servari Similiter potes intelligere de omnibus aliis lapidibus.

C (p. 81).

Bodleian Digby 13, fol. 17, twelfth century, English hand.

[fol. 17.] Orites alius niger. Alius viridis et viridis albas habet maculas. et valet ad omnia mala bestiarum. et puncturas omnes et ad alia omnia pericula. nec potest comburi. et est hoc quedam eius probatio. quod est alius qui ex una parte planus est, et ex alia quasi clavos habet. et facit vitare pavorem.

Lasulus lapis est de frigia. tener multum et valet in unguentis et ad quartanam febrem. et ad cordis timorem si bibatur cum cupella rosarum.

Jacintus ut dicit Aristoteles valet contra iram et contra sanguinis fluxum si sit perforatus et sic portatus ut carnem tangat et contra tempestates valet.

Jasper viridis valet contra fantasma et febres. et iram domini.

Gagates lapis valet ad casum titubationem dolorem dentium si sit bene tritus et cum aqua mixtus et de illa aqua sint dentes bene loti et valet contra menstruum si super carbones missus sit ita ut fumum mulier in ore suscipiat, et post bene cooperta uti post stuvam et valet contra serpentes et ad partum valet, si prius gagates sit calefactus et sic in aquam proiectus et per tres dies sic ieiunio potatus et contra incantaciones valet.

Epitistes valet ad venenum, et insaniam si ponatur super eum [fol. 17 v.] et ad partum, et ad tempestates et ad vermes et ad omnia nociva si sit sinistro brachio portatus.

Eliotropius vocatur petra asini et valet ad corporis infirmi-

tates et ad plagas et galnicium, et venenum si sit in aqua lotus et aqua potatus.

Calcedonius in ora perforatus valet ad omnes causas et pericula ignis et aque, et venenum et tempestates.

Lambra valet ad totius corporis sanitatem et conferendum calorem si sit potatus, et ad gaudium.

Corallus ut dicit galienus valet ad omnem dolorem oculorum et caliginem et dentium dolorem, et putre[tu]dinem et russitudinem si sit bene tritus et cum cumino mixtus si dentes sint bene fricati inde et oculi loti, et ad fluxum sanguinis, si sit potatus et ad sanguinem plage si sit superpositus et ad cordis pulsum si sit pertusus portatus.

Celidonium niger valet ad quicquid valet russus celidonium et preter hoc ad oculos si sint loti de aqua mixta cum tritura illius, et ad febres et ad partum etiam portatus.

Bellocolus valet ad omnia nocumenta maxime bellantibus.

Berillus valet ad hominis exaltacionem et ad sanguine(m) oculorum [fol. 18] et ad caliginem si sit bene tritus lavando, valet ad exteriores infirmitates potando ad interiores.

Alabantina valet ad conferendum calorem.

Asius est lapis albus est et albas habet mendas super venis ut pumex. salis saporem habens et valet ad guttam fistulam et scrauuellas. et podagram. et ad alias infirmitates. si sit potatus cum vino.

Ametistus valet ad febres, et calidum malum et ad fantasma et ad pavorem dormiendo. et ad mala sompnia et ad inimicos, et tradicionem et ad diaboli nocumenta, et insidias, et ad equi infuturam et ad sortelure [?] et ad trencesuns et ad farchi et strangelun.

Capnites lapis est similis cristallo qui valet ad incantaciones [sic] et malas voluntates et idropisin si sinistro brachio sit portatus.

Borallus vel Corallus vocatur lapis quidam qui valet ad incantaciones et derisiones et iras si in eo sit nomen. hoc nocticula scultum et serpens scilicet gorgon et valet scilicet ad omnes inimicos, et ad victoriam et plagam et pavorem.

Amaradama lapis est similis argento et valet contra malos animos et portantis et aliorum iras.

Asterion similis cristallo lapis est.

Alabastrum lapis est tener qui portatus valet ad pectus.

Adamas lapis est similis cristallo qui si clausus sit in argento [fol. 18 v.] ad modum crucis valet contra inimicos et sompnia et fantasma potest etiam iste lapis in ere tortes entor [*altered by a later hand to something illegible*] et sinistro brachio portari et valet tunc ad omnia predicta.

Jacinctus granatus valet ad peragendum velle portantis et

ad malas pociones et dolorem capitis die qua eum viderit, et ad sanguinis mixturam et ad plage ratunculum si plaga de illo fuerit tacta.

Crisopis valet contra diabolum et inimicum alium et contra omnes infirmitates et mala omnia.

Sardonix valet valet [*sic*] contra inimicos et iniurias et valet ad castitatem conferendam.

Calcedonius valet ad auferendam tristitiam et trahit paleas ad modum gagatis si sit similiter fricatus.

Saphyrus habens aeris clari similitudinem valet contra iram domini et confert omnia bona.

Cornelius lapis. pertusus. valet ad sanguinem stringendum. et ad iras auferendas et lites.

Collire similis est safiro et albus in ora, et valet ad omnes iniurias.

Daphnion¹ lapis est qui valet ad fluxum sanguinis et ad ydropisim et diabolum et ad omnia mala, portatus.

Dionisia² lapis est niger et Rubeas habet maculas qui si sit [fol. 19] bene tritus et cum aqua mixtus et mixtura illa cum vino mixta bonum confert saporem vino et sanitatem.

Exebenus est lapis albus aurifabris idoneus qui si sit bene tritus et cum vino a femina insana potatus illa sanabitur.

Ematites valet contra lapidem et urine nocumentum si sit cum lacte mulieris potatus et ad corporis interiores infirmitates lavando de lacte ad exteriores, et ad serpentis puncturas, et cum melle si sit bene tritus et ad plagam positus.

Frigius³ lapis est venas habens aliorum colorum qui cum vino potatus valet ad guttam fistule et ad podagram.

Fumoni⁴ est lapis qui ut dicit Tiberius valet ad venenum et langorem et timorem, et ad conferendam victoriam et contra maris pericula et iram domini.

Fedus⁵ lapis est qui bene tritus et potatus cum lacte mulieris primi infantis maris reddit lumen oculis cecis si sint etiam de illo lacte loti, et ad dolorem pectoris valet potatus, cum lacte ovis primi agni maris et albam pellem habentis, valet etiam ad vermine et languorem et combustionem etiam villarum.

Gachatrameos lapis est similis capreolo qui ut [*sic*] dicit Evax valet ad conferendam victoriam.

Pantheros lapis est creatus in bestia que vocatur pantera et est multorum colorum lapis iste et valet contra malos vicinos die qua videbitur et ad conferendam victoriam.

Silenites similis est iaspidi in colore, et valet contra languorem et guttam, et crescit et decrescit secundum lunam.

Tegolitus est lapis similis grano olive. qui si potatus sit. cum aqua valet ad renes et vesicam.

¹ Daphneion. ² Dionysia. ³ Phrygius. ⁴ Memnonius. ⁵ Medus.

[fol. 19 v.] Onix et onichinus lapides sunt diversi quia onix quidam est sicut unguis manus, alius ut pollex rustici et habet aquae colorem et albas maculas in ora. alius est niger et albas habet listas. Alius in medio flavus in circuitu et est valde nocivus.

Ectenius lapis est valens venatoribus et aves capientibus.

Jacinctus est lapis quidam flavus et obscurus propter spissitudinem. Iacincti tres sunt species, alii granati. Alii venas habentes, alii plani qui omnes teste Aristotele valent <ad> iram iniquorum et fluxum sanguinis.

Epitistes est lapis rubeus et lucidus f(r)igidissime nature teste Evax.

Etites lapis est rubeus aliquantulus et asperi luminis, valens ad omnia bona.

Chimedia lapis quidam qui solet inveniri in capite piscis et valet ad tempestates et ad omnia mala.

Capnites lapis est similis cristallo. et valet contra incantatores et malas voluptates.

Asterion teste Evax similis est cristallo. et a stellis accipit colorem suum et fortitudinem.

Adamas lapis est valet talis nature quod quamvis sit aliorum omnium lapidum durissimus. sanguine irci superposito lima plumbi in minutis partibus potest dividi.

Lambra lapis est et habet diversas species. sed qui est albe nature magis confert. et qui hunc lapidem scilicet lambram portat. non cito esse senes apparet. et calorem ferenti confert.

Etites lapis est vermeile nature et asperi luminis a quo lapide lapis alius cingi videtur. quasi sit pregnans.

Herimacius lapis est similis est colori ancipitris.

Agates lapis est habens colorem pellis leonis et valet ad puncturas scorpionis serpentis tali medicamine scilicet in stupis debet involui et in aqua poni, et super plagam firmiter debet ligari vel potest minutissime tegeri et super plagam legari vel potest cum vino bibi, et valet iste lapis ad omnia nocentia.

D (p. 91).

Bodleian Rawl. MS. D. 358, pag. 81.¹ MS. given to St. Albans by Abbot John of Whethamsted. Fifteenth century.

¶ Incipit liber de lapidibus preciosis. Prologus. Generaliter primo dicendum est de lapidibus preciosis in quibus magna videtur virtus et efficacia sanitarum. Vnde autem hec habeat

¹ Thomas Cantimpratensis (of Brabant, 1201-70). (See Steinschneider, 'Lapidarien', in *Semitic Studies in Memory of the Rev. A. Kohut*, p. 57.)

nisi a deo homini compertum est. Quia omnis virtus a deo est. Constat nempe quod sine medio deus omnipotens virtutem indidit lapidibus preciosis. et eis voluntatis sue gratiam tribuit. pro ratione nature. Excepta autem gracia sanitatum. miracula multa et magna experiuntur in gemmis. Vtpote de magnete et adamante qui sibi attractacione ferri videtur inimica. De adamante qui stellam maris demonstrat. De ostolano qui hominem reddit invisibilem. De carbunculo. qui sine ignis adminiculo tenebras noctis fugat. De multis quoque alijs ut presens testatur liber. Horum igitur miraculorum ratio est omnipotentis dei voluntas. De hijs quoque dicit beatus Augustinus libro de civitate dei xvº quod alliciuntur demones ad inhabitandum creaturas. que cuiusque delectacioni congruunt. per varia genera lapidum. herbarum lignorum animalium et carminum. Vnde et Salomon legitur inclusisse demones sub gemmis in anulis. Legitur autem quod Evax rex arabum scripsit Neroni cesari. nomina colores virtutes et diferencias lapidum et hec scriptura postmodum per versus metricos honorata est. Quorum versuum sensum. simplici sermone digessimus addentes et aliorum auctorum opiniones. In fine vero libri posuimus quasdam opiniones veterum. quas nec credendas putamus per omnia nec omnimodo refutandas. Opinio vulgaris est. filios israel sculpsisse quasdam gemmas in deserto et maxime corneleos tam subtiliter. ut nullus ex post huiusmodi operis imitator extiterit. Nec est dubium. quin secundum efficacias virtutum gemmarum figure et ymagine sculpebantur. Quod si verum quod si filij israel gemmeos lapides diversis inter se sculpsere figuris. Constat quia sine ratione virtutis utpote illi qui spiritu dei repleti ab illis quos deus in misterium omnis operis fabrilis et et [sic] architectorie artis elegit. Beseleel scilicet et heleab. quique spiritualiter docti in omnem artem gemmariam ad sculpendum et poliendum rationale iudicij et superhumeralis in pectore et humeris Aaron opere mirabili perfecerunt. posueruntque in eis secundum divinam responsionem xij lapides preciosos et sculpservnt in eis nomina filiorum israel. per hoc patet quod nominavitur [sic] sculpture reperiuntur in gemmis. Nectamen per hec credimus quod omnis sculptura virtutis signum sit et misterialis.

[List of 67 stones.]

[pag. 82.] *Ametistus*. Ametistus lapis unus de xij violacij coloris est et hic optimus est. Est autem quidam velut gutta rubij vini corrupta aqua. et hic facilius est ad sculpendum. Qui et contrarius est ebrietati. Hic lapis carus esset valde. si rarior esset. In Ethiopia et india reperitur. in germania etiam sed vilis et obscurus.

Achates. Achates lapis est unus de xij qui in achate fluvio orientali reperitur. Hic colore niger est venis albis intermixtus. Hic in gemmathas dicitur habere figuras. venis vinus coloris insitas. Sed hoc opus est nature non artis. Venena fugat. sitim sedat. visum fovet. sanitatem roborat. gratumque gestantem reddit. Igni appositus mirum dat odorem. Hunc lapidem pirrux rex egypti gestasse fertur in digito in quo instrumenta cum musis attracta videbantur et Apollo in musarum medio tenens citharam.

Adamas. Adamas lapis est cuius duo sunt genera. Invenitur in ultimis partibus indie inter rupes cristallinas in colore cristallo similis. sed in hoc distat quod quasi ferrum limatum micat. qui tam durus est. ut nec ferro nec igne frangi queat sed hyrcorum sanguine recenter fuso calefactus incinditur. Huius fragmentis acutis durissime gemme sculptuntur. Huius autem quantitas non excedat magnitudinem nucis avellane. Hic lapis a quibusdam dicitur dyamas. fertur autem quod fert gestanti gratiam. si eum gratis recipit ab amico. sed nichil confert sibi qui ipsum emit. prece vel precio mediante. Huius vis maior perhibetur. si sedes eius fiat in ferro. tamen pro dignitate lapidis anulus fit ex auro. Alterum[pag. 83] genus adamantis reperitur in Arabia et in mari cipro proximo et in ferraria que philippis est. sed hoc genus dignitate et virtute multo est inferius. Huius generis adamas magis quantitatis reperitur. sed colore dissimili. Obscurum enim ferrugineum colorem habet et sine hyrcino cruore frangitur. Ferrum attrahit et magneti lapidi aufert ferrum si presens sit. Stellam maris etiam que maria dicitur. hac arte inter obscuras nebulas per diem vel noctem prodit. Nocte enim cum inter obscuras nebulas vias suas dirigere non valent ad portum naute. accipiunt acum et (c)acumen eius adamantem infigunt per transversum in festuca parva mittuntque vasi pleno aqua. et tunc circumducunt adamantem lapidem et mox secundum motum lapidis. sequitur in circuitu cacumen eius. Rotatum perinde citius per circuitum lapidem subito retrahunt. et mox cacumen. acus amisso ductore aciem dirigit contra stellam maris. subsistitque statim nec punctum movet. Naute vero secundum demonstrationem factam ad portum vias dirigunt. Hic lapis etiam ad artes magicas valere dicitur. ffortem facit contra hostem portantem. Sompnia vana repellit. venenum fugat et prodit. Dicitur autem sudare si venenum adhibeas. lunaticis prodest et hiis qui de mane repleti sunt. Hic lapis in leuo lacerto gestari vult.

Albeston. Albeston lapis est in archadia ferruginei coloris. Qui semel accensus. nunquam extinguere potest. Sed perpetes

semper detinet ignis flammās. De quo dicit Ysidorus. fit mechanicum ut lucerna ex ipso facta sub divo sic ardeat ut eam nulla tempestas nullus ymber extinguat.

Amanthos. Amanthos lapis est orientalis alumini similis. hoc lapide perlita vestis serica igni relucet. splendoreque tantum accepto nitescit. In aquam inundatus veneficis resistit et magorum prestigiis.

Alectorius. Allectorius lapis est ad mensuram fabe cristallo prope similis sed paulo turbidior. Nascitur in ventre galli. qui post tres annos castratus et postea vij umens. hunc portat. Hic portatus in ore sitim sedat. Victoriosus est. pacem reconciliat. honores reformat. disertum facit et gratum et uxores maritis maxime. ffacit autem hec omnia clausus gestatus in ore.

Abscinthus. Abscinthus lapis est coloris nigri venis interlitis niveis. ponderosus nimium. Hic si calefactus ab igne fuerit. septem diebus calorem dicitur retinere.

Alabandina. Alabandina lapis est preciosus et pulcher quippe. qui colorem habet cum granato. licet crassiorem et magis emulum rubino. Est et genus alabandini quod sardium imitatur et in regione asie que alabanda dicitur reperitur.

Andromanda. Andromanda lapis quadrus durissimus quasi adamas coloris argentei in rubro mari reperitur. Hic tante virtutis est ut possit animum furore calentem (sedare). luxuriam quoque sedat.

Berillus. Berillus lapis est unus de xij colore pallidus. aquis marinis similis. [pag. 84.] Set illi sunt optimi qui sunt similes oleo lucido. Maxime hij qui maculas non habent interius. Sunt enim berilli qui sunt lucidissimi sed habent interius minutas et longas maculas velut parvos capillos. Berillus si formam sexangularem habeat. arcus celestis colores efficit in radio solis. Si rotunde forme fuerit velut pomum humectatus aqua in calore solis carbones mortuos. vel pannum lineum nigrum combustum vel bullituram arboris siccam accendit. Vnde quidam versificus. Me dedit insignem virtus quem format in ignem. Solis splendorem non ignis passa calorem. Sic lux eterna defendit ab arce superna. Est incarnata non matre tam violata. Dicitur enim quod morbo squinancie medetur. et glandes qui ex malis colliguntur humoribus per fricacionem tollit cum adhuc in augmento sunt. Et amorem coniugum reconciliat. Gestantes magnificat. Infirmis medetur oculis ablutus aqua. Que si in potum suscipiatur. ructatus tollit et suspiria et dolores epatis. Huius lapidis novem sunt species. Et sunt quidam lucidi instar cristalli. Hunc lapidem India profert.

Borax id est Crepaund. Borax lapis est preciosus. dictus

ab eo quod eum borax quoddam animal scilicet genus bufonis in capite eum portet. Huius duo sunt genera. Unum album et hoc melius et rarius. Aliud fuscum et nigrum et in medio suo oculum habet. qui pene ceruleum colorem imitatur. Et hic in fusco genere melior est. Quando buphoni vivo et palpani extrahitur. tunc oculum habere dicitur. Quando vero extrahitur diu aliquantulum mortuo tunc illa macula extinguitur et non apparet et lapis viciatur. Hic lapis in cibum sumptus interna hominis mala sanare dicitur. Circuit enim intestina et facta cura per inferiorem egreditur regionem. Dicitur autem inger hanc habere virtutem qui est de albo genere huius lapidis. Hanc gemmam crepandinam galli vocant et venenis resistit.

Carbunculus. Rubinus Balausto. Carbunculus omnium lapidum preciocissimus unus est de xij. qui positus legitur in veste Aaron. Cuius color igneus est. nocte magis lucet quam die. quia die obscuratur. Noctis vero tenebras fugat. Grece vero antrax vocatur in libia que est trogoditarum nascitur. Cuius tres sunt species. Prima carbunculus. secunda Ruby. tertia balaustus. que vilior est. ruby coloris est ignei. sed incomparabiliter minoris quam carbunculus. Vnde nec nocte tenebras ullas fugat. virtutibus etiam impar est. tamen inter ceteros lapides preciosior et elegancior est. qui coloris est syderei. Balaustus que est species tertia. multo vilior est colore virtute et precio. tamen saphyro et jaspide dignior estimatur.

Calcedonius. Calcedonius hebetis est coloris et crassi. semper pallidus. Color tamen eius inter jacinctum et berillum est medius. Qui si collo feratur vel digito causas vincere perhibetur. Cuius lapidis species tres esse dicuntur.

Corallus. Corallus lapis est rubeus sed non ita perlucidus sicut cornelius. figuram habet tanquam cornu cerui velut radix herbe cum [pag. 85] multis radicibus. nec mirum. quia primum in mari herba est et navibus extracta vel arte hominum expositaque liquoribus durescit in lapidem. Invenitur tantum semipedalis. Resistit fulminibus et tempestatibus. Vnde veteres hac ducti opinione lapidem hunc confractum cum seminibus iactabant in agro aut suspendebant in arboribus olyvarum. ne grandinum sentirent dampnosa pericula. Demonibus est terribilis et hoc forte quia frequenter formam crucis habet ramorum eius distencio. Casus adversos avertit et comoda prestat. Vnde ovidius. Sic et corallum quo primum contigit Tempore durescit mollis fuit herba sub undis.

Crisopassus. Crisopassus lapis est de duobus coloribus aureolis scilicet guttis micans. et porri succo coloris permixtus. Sed hunc rarissime tradunt inveniri unde carior habetur. Invenitur tamen in india.

Celidonius. Celidonius lapis est informis et parvus qui in ventribus hyrundinum reperitur. Aliquando rufi coloris aliquando nigri. Pulli hyrundinum qui hunc lapidem in iecore suo portant. cognoscuntur ex hoc si ore ad os conversi sedent in signum pacis adinvicem. Rufus quidem dum reperitur sedat lunaticos et insanos langoresque diuturnos. facundum gratumque reddit hominem. Panno lineo debet involui. lapis hic in sinistra gestari. Niger autem quando reperitur. consimiliter panno lineo portari debet et est aptus negociatoribus. Iram mitigat et dilutus aqua lumina clarificat. Gestatus in panno croceo febres sedat et humores nocivos.

*Cacephanus.*¹ Cacephanus lapis est niger. qui si portetur ab homine casto vocem reddit dulcem et sonoram. defenditque fauces a raucitate. Est autem lapis ipse sonorus ac dulcis instar eris. si ferro percuciat aut ere.

Cristallus. Cristallus lapis est duratus per annos plurimos. de glacie. Solinus ponere contrarium tamen videtur. qui dicit cristallum inveniri in aliquibus mundi partibus. ubi numquam gelu vel glacies videbatur. Hic lapis est clarissimus instar glaciei. Si rotunde forme fuerit ut supradiximus de berillo. accendit fungos subiectus sole. Cristallus tritus et cum melle mixtus atque potatus ubera lacte replet.

Crisolitus lapis est auro similis vel electro. Matutinis horis colore iocundior. Qui si admoueat igni statim corripitur et raptā materia velut ea fugetur ab igne resilit. Hic ex se scintillas emittit igneas. et omne genus fugat serpentum.

Ceraunius. Ceraunius lapis est coloris cerulei. qui quasi greco sermone a fulmine dictus est. quia in fulmine de celo cadit. In loco ubi lapis hic fuerit fulmen cadere denegatur. Est autem acutus sepius ex una parte.

Corneolus vel *cornelius* lapis dicitur esse rubeus. sed obscuri coloris similis carni incise iras mittigat sanguinem fluentem de membro [pag. 86] sistit vel de naso. et precipue de femina dum fluxum patitur. Horum lapidum scilicet cornelinorum multitudinem sculpsisse feruntur filii israel. in deserto. nec sine magna causa.

Crisolitus. Crisolitus lapis unus de xij. de quo supra auro micat. ut ignisscintillat. Mari similis est. habens quoddam viroris ad umbras. Si gestetur in auro valet contra timores nocturnas. Si perforatus fuerit et foramen repletum fuerit setis asini demones exterret et exagitat levo lacerto gestari debet.

Dracontides. Dracontides lapis est qui ex cerebro draconis extrahitur et non fit gemma nisi draconi viventi excisum

¹ Chalcophonos.

fuert. Quod fit hoc modo audaces viri explorant draconis specus et dormientis draconis subito caput transverberant. Sicque pleno vigore palpanti gemma extrahitur. Qua gemma reges orientales maxime gloriantur. Est autem coloris translucidi.

Dyonisia. Dyonisia lapis est orientalis fuscı coloris et niveis respersus guttis. Hic in aqua tritus vinum flagrare facit. et tamen contra naturam ebrietas fugatur eius odore. Odor enim vini ebrietatem inducit naturaliter etiam absque potu. Nigra micat niveis dyonisia consita guttis.

Diadocos lapis est qui iniectus aquis variis efficit effigies demonum. ita ut responsa petentibus. Si admoveatur corpori defuncti. subtrahat se. quasi si sensibiliter abhoreat mortem cuiusque. Berillo similis est in colore.

Emathites. Emathites lapis est ab ethyopia vel arabia coloris ferr(u)genij mixtus venis sanguineis. Qui confractus et resolutus in aqua sanat eos qui sanguineas salivas emittunt. sanat etiam fluxum menstruum et fluxum ventris. pulvis eius permixtus vino sanat ulcera et valet contra morsus venenosos. Oculos etiam more colirij mundificat. Bibitus lapidem vesice frangit. Pulvis eius etiam carnes in vulnere mortuas rodit et tollit.

Echites. Echites lapis est ab extremis mundi partibus ab aquila portatus ad nidum. Nam naturaliter experitur aquila. hunc lapidem pullis suis tutamen esse. Alij dicunt quod ova aquile intemperato calore concalescerent. nisi lapis naturaliter frigidus presens esset. Hic lapis coloris est punicei habens lapillum interius ex quo sonorus est. Efficacissime pregnantēs iuvat ne faciant aborsum vel ne nimium laborent in partu. In levi [? laevo] lacerto gestari gaudet. Sobrietatem confert auget divicias. prestat gratiam facit victorem et pueros servat incolumes.

Elitropia. Elitropia lapis est qui radijs solis in vase aqua pleno subiectus sanguineum reddit colorem soli veluti si pateretur eclipsim. Nec in ora vas in quo iacet videtur ebullire et aqua spargere velut ymbres. Hoc facto arepticij si sint presentes [pag. 87] extra se rapiuntur et predicunt futura. lapis iste gestantem producit in longa vite tempora. Sanguinem stringit. venena fugat et contra dolos tutum facit. Vterius si elitropia huiusmodi nominis herba subiecta lapidi fuerit et sacrata legitimo carmine. gemma reddit hominem invisibilem. Est autem herba elitropia. que et solsequium ut quidam volunt. Hanc gemmam fert ethiopia. cyprus et affrica viridis est ut smaragdus et sanguineis aspersa guttis.

*Clydros.*¹ Clidros lapis est cristallo similis. qui miro modo

¹ Enhygros.

perpetuis distillat lacrimis. Est hoc magis mirum quod substantia lapidis non liquescit. nec lapis minuitur. sed durus et integer in omnibus perseverat.

Granatus. Granatus lapis est pulcherimus colore pene similis rubino. sed crassioris coloris ut rose. difficillime sculpitur. Clarius rutilat si substernitur ei color niger. ffugat tristitiam et hillarem reddit animum. Invenitur in ethiopia et circa tyrum inter harenas expulsus maris fluctibus. Est quoddam genus quod violaceum dicitur. quia colorem viole mixtum habet rubori. Et hoc genus preciosius assimilaturque multum balausto.

Gagas. Gagas lapis est preciosus in licia et in britannea. lucidus et niger ac levis. Calefactus paleas attrahit. Ardet aqua lotus. oleo extinguitur. Prodest ydropicis et dentes labefactos firmat ablutus aqua. Subfumigacio reddit menstrua accensus prodest caducis et elidros eodem modo. ffugat demones. Et si loquantur per os hominis possessi. eius fumus cogit eos exire vel tacere. Stomachum eversum iuvat. Contra prestigia valet. Pregnantibus etiam prodest aqua. in qua per triduum iacuerit. Cito partum liberat aqua ipsa. Producit virginitatem. Nam si virgo est manet immota. Si corrupta mox emittit urinam.

Gelasia. Gelasia lapis est preferens candorem grandinis invincte duricie ut adamas. Hic nunquam ab igne poterit calefieri. sed frigidus semper manet.

Gecolitus. Gecolitus lapis est orientis. nucleo olive similis. aspectu vilis sed virtute preciosus. Qui solutus aqua et haustus lapidem vesice solvit et congregatas in vesica arenas purgat.

*Galertides.*¹ Galartides lapis est similis cineri. cum lacte tritus et potatus. lac multiplicat pregnantem liberat. Scabiem fugat vitello locus ovi patrat bona gerenti. Reperitur in nilo fluvio.

Gagatromeus. Gagatromeus lapis est similis pelli caprioli. Hic gestantem victorem facit in bello. nec ei quicquam potest resistere terra marique. Hercules hoc lapide legitur. pericula multa vicisse et hostibus succubuisse quociens secum non habuit gemmam istam.

Jaspis. Jaspis lapis est virens unus de xij. qui licet sit virens. guttas tamen habet sanguineas. Optimus est qui magis translucet. Si castus sit qui portat illum. febres fugat et ydropisim. Iuvat etiam mulieres in partu. gestantem etiam facit tutum et gratum si consecratus [pag. 88] sit. Noxia pellit fantasmata. Maior est eius virtus si portetur in argento

¹ Galactites.

Huius quoddam genus est valde rubens ignis translucidum et hoc preciosum. Aliud rubens nec perlucidum et hoc vilius est.

Jacinctus. Jacinctus lapis est coloris cerulei, qui in obscuro nubilosus est, in sereno clarus. Nam aera sentire dicitur. Optimus est qui nec nimis clarus nec nimis obscurus est. Durus est sic quod cindi vel sculpi recuset. Sculptur tamen aliquando fragmentis adamantis frigidissimus est et magis si in os mittatur. Confortat gestantem fugat tristiciam et suspiciones varias, peregrinos vel peregrinum facit tutum. Tutamen est contra pestilenciam et contra serpentes atque venena. Gratum reddit gestantem tam deo quam hominibus. Hanc gemmam mittit Ethiopia. Granatus de genere est jacincti.

Isciscos. Isciscos lapis est croco similis cum levi fulgore. Si ex ipso lapide vestis texta fuerit igni resistit, ita ut nec igni imposita non ardeat lapis iste. Sed splendore accepto nitescit flumini aliquando similis, veneficis resistit omnibus et precipue magorum.

Yris. Iris lapis est cristallo similis, forma sexangularis, hic si subiciatur solis radio infra domum efficit in pariete colores ut archus celestis virtus eius contra fulmina ut rubus in mari nascitur.

Hyena. Hyena gemma est preciosa valde, dicta ab hyena dicta bestia, quia ex illius oculis tollitur. Que gestantem facit futura predicere, si sub lingua portatur in ore.

Ligurius. Ligurius lapis est unus ex xij, qui nascitur ex urina lincis et durescit in lapidem. Color eius igneus et rubicundus carbunculo similis, nisi quod de nocte non lucet ut dicit plinius. Evax dicit gemmam hanc electro similem lapidarius vero viridem. Ablutus aqua iuvat constipatos ventrem solvit, recuperat in facie colorem perditum paleas sicut gagas trahit, valet calculosis.

Margarita. Margarita invenitur in conchis, meliores sunt candide quam pallide sive rufe. Et quia nunquam due in una concha reperiuntur, dicuntur uniones. Margarita in aqua mollis est, excepta durescit in lapidem. Ultra semiunciam non reperiuntur. Summa laus coloris est, quando sicut alumen micat. Alique sunt oblonge alique vero rotunde. In aceto posite cicius resolvuntur. Hic lapis tritus et confectus secundum modum debitum, sanat debilitatem stomachi. Habet etiam virtutem concordie atque patrandi sanitatem mentis et corporis. Mentis quidem, quia castum gestantem reddit.

Magnes. Magnes lapis est coloris ferruginei ferrum vicinum attrahit absente adamante, sed hoc non potest si adamas presens sit. Dicunt hunc lapidem prestigijs et arte

magica valere. Et si quis scire cupiat, si coniux sua sit adultera, supponit capiti mulieris sternentis lapidem magnetem. Et illa si casta sit petet maritum, cum amplexu etiam dormiendo. Si adultera cadet de lecto subito tanquam manu pulsa. Sicque [pag. 89] lapis celatum crimen prodit. Dicitur autem uxores conciliare viris. Si aliquis furandi voluntate domum per noctem intraverit et fur posuerit per quatuor loca domus ardentes prunas et supersperserit fragmenta magnetis mox vapor fumi evertet mentes inhabitantium domum illam sic ut eos fugere faciat et fur impune rapiat que in domo sunt. Lapis iste contritus lactique commixtus, morbum sanat ydropicum. In pulverem redactus combusturas sanat. Invenitur apud trogoditas et indos. Tanto melior est, quanto magis ceruleus. Vitrum trahit ut ferrum. Hoc lapide quedam ymago ferrea, ut dicit sanctus Augustinus in aere sine aliquo sustentamento suspendebatur.

Memphites. Memphites lapis a memphis loco egypti dictus est, qui colorem velut ignis habet. Hic tritus et aceto mixtus datur ad bibendum hijs qui urendi vel secandi sunt, ut obstupescere faciat corpus ne senciat cruciatum.

Melonites. Melonites lapis est arabie crassum colorem habens atque viridem. Smaragdo prope similem sed non ita lucidum. Hic firmat artus teneros et protigit a sinistris casibus.

Medus. Medus lapis est a regione medorum virens parumper. Lacte solutus femine que marem peperit, visum reddit cecis et sanat podagram, ffreneticos curat etiam aquis resolutus et potatus et facit evomi pulmonem. Et qui laverit ipsis aquis frontem cecum facit. Evax dicit. Hic totus niger est.

Onichinus. Onichinus lapis precicissimus unus ex duodecim, similitudinem unguis humani habet. Vnde oniche grece unguis dicitur. Valet contra scabiem dealbat faciem et suavissimum reddit odorem.

Onica. Onica genus gummi, durescit in lapidem sicut succinum. Qui infirmo appositus oculo spontanee sine lesione intrat, et circuit interius omnes partes oculi, donec contrarios humores evacuarit. Quod ideo videtur mirabile quia nihil ita est exiguum, quod non ledat oculum si intraverat [*sic*]. Vnde proverbium, angusta mansio oculus qui hospitem nullum patitur.

Ostolanus. Ostolanus vel ostaines lapis patronus furibus, quia gestantem reddit invisibilem et obducit nubem oculis circumstancium, gestantis visu integro conservato. Huius lapidis colorem auctor tacet, ne possit faceli [*sic*] reperiri.

Orithes. Orithes lapis est virens, habens albas maculas resistit adversitatibus. Aliud genus est nigrum atque rotundum

quod medetur oculis venenatis. Vinctus oleo morsum etiam abigit serpentium et ferarum. Est aliud genus eiusdem lapidis quasi parva lamina ferri, quod pregnantem facit vel si pregnans fetum fundit.

Perites. Perites vel pederotes lapis est fulvi coloris, qui si forcus stringatur in manu manum stringentis adurit. Sed leviter tangi gaudet et pavide. Aliud genus coloris est pene viridis ut succus porri cum aqua misceatur. Et hoc genus valde nobile valet contra spasmus.

[pag. 90.] *Pantera.* Pantera lapis est dicta ab ipsa pantera bestia, fere colorum omnium. Hunc gestans debet in manu conspiciere summo mane oriente sole. Ut sit victoriosus et efficax in omni re. Rabiem sedat et in india nascitur, tot dicitur habere virtutes, quot colores.

Parasius. Parasius vel prasius lapis pulcher est et virens sed crassiore colore quam smaragdus, ad nihil utilis, nisi quod aurum decet, ex hoc lapide smaragdus exciditur.

Saphirus. Saphirus lapis est preciosissimus unus ex xij coloris cerulei et hic magis preciosus qui ex india venit non translucet. Conservat corpus et membra integra, interiora vegetat, ardorem interiorem refrigerat. Sudorem stringit, tollit ex oculis et ex fronte dolorem. Medetur et lingue ulcera sedat, ffugat horribilem morbum dictum, noli me tangere. Sed colorem post morbi fugacionem dicitur vitiare. Optimus est contra fraudes invidias et terrores.

Ad pacem etiam est graciosus. Gestans cum summo studio custodiat castitatem, ne virtutes amittat. Orientales saphiri sunt optimi et hij maxime qui vehementer splendent colore ceruleo, et quasi nubiculas habent in superficie coloris densioris. Sunt etiam quidam saphiri orientales qui rubyth lapidem admixtum habent, et hij inter ceteros sunt cariores et virtute potenciores.

Smaragdus. Smaragdus lapis est preciosus, unus ex xij. Qui viret pre omnibus rebus virentibus. Optimus est qui in scithia reperitur. Hunc armaspi eripiunt grifonibus. Illi peroptimi sunt lapides quos visus penetrat et de quorum fulgore vicinus aer virere cernitur et quorum viror non obfuscat sole vel lucerna vel umbra, fforma eius optima est plana. Si caste portetur fugat morbum caducum qui li entericus dicitur. Visum refocillat, purgat oculos. Si ablutus fuerit vino vel oleo perunctus, reddit hominem gratum in verbis. Auget opes. Auxiliatur eis qui scrutantur abdita. Avertit tempestates, compescit lascivos motus.

Sardonix. Sardonix lapis est unus ex xij naturaliter creatur ex onice et sardio. In parte rubeus et hoc ex sardio.

In parte albus et in parte niger et hii duo colores ex parte onices sunt. Nullam virtutem habet. nisi quod onix nocere non potest ubi sardonix presens est. Speciem habet pulcherimam ubi permixti colores fuerunt. Hic lapis ceram nescit evellere. Reddit prudentem et humilem qui hunc portat. Resistit potestatibus onicis. Quia sicut ille videri facit in sompnis demonum fantasmata et lites commovet et multiplicat hic omnia talia fugat.

Sardius. Sardius lapis unus ex xij a sardis. primo repertus est. coloris est rubei. sed aliquot ut terra rubea. Sanguineum stringit fluxum. et lapis onix nocere nequit. Cum sardius presens fuerit. Quidam dicunt hunc esse cornelium lapidem.

Samius. Samius lapis est a samo insula. Dictus qui gravis candidus est. hoc lapide pollitur aurum. Gestatus sedat vertiginem mentes commotas restituit. Hoc habet vicij. quod alligatus mamme laborantis in partu. partum continere dicitur.

Succinus (Ambra). Succinus quem greci vocant electron. crocei est coloris. et ut vitrum quandoque lucet sive translucet. [pag. 91.] Et est succus arboris pinee ut dicit ysidorus. et ideo succinum appellatur. Vocatur et ambra vulgariter. Attritus vel calefactus digitis folia et paleas et vestium fimbrias rapit sicut magnes ferrum. Tangi potest quocumque modo volueris. Nam inficitur cuiusdam herbe radice attuse vocata. Gestantibus conferre dicitur castitatem. ffumus eius parturientes iuvare dicitur et fugare serpentes.

Silonites. Silonites lapis est in india quem testudo portat. Albo rubeo vario purpureoque colore pulcher. Huius genus quodam viret ut herba. Quod si portetur in ore predivinat futura. Verbi gracia. Si vis scire quod debet fieri vel non fieri. cum lapidem sub lingua posueris. revolve in animo fieri debere illa vel non fieri. Nec mora adhaerebit cordi tuo unum istorum. ita ut non possit avelli. Hic lapis crescente luna mane et hora sexta virtutem habet. Quando prima tantum una hora. Quando luna decima prima et sexta hora. Decrescente vero luna virtute caret. Sed precedente die virtus manet. Igne nunquam frangitur. Conciliat inter odientes amorem. Tisicos et languentes curat. Invenitur in persida.

Topazius. Topazius lapis est unus ex xij. cuius color auro similis est et hic magis preciosus. Aliud est multo lucidius et coloris magis tenuis. sed est deterius. auxiliatur emoreicis. lunam sentire dicitur et conpescere bullientes aquas ffertur insuper iram restringere et luxuriam. Invenitur in arabia. Plinius dicit. tante magnitudinis fuisse repertum topazium ut pholoneus philadelphus statuam exinde faceret quatuor cubitorum.

E (p. 102).

E. Bodleian Digby 79, fols. 178 v.-179 v., thirteenth century, English.
 Completed from (F) B. M. Sloane 1784, fols. 5 v.-7 v., fourteenth century,
 French: words inserted from this MS. are in parentheses.

In nomine Domini nostri Iesu Christi. Hic est liber preciosus, magnus atque secretus sigillorum Ethel, quem fecerunt filij Israel in deserto post exitum ab Egipto secundum motus et cursus siderum, et quia multi ad similitudinem huius falso facti sunt, in hoc libello subnotavimus.

Incipit de sigillo facto sub Mercurio. Si inveneris sigillum in lapide sculptum, scilicet virum sedentem super aratrum longobardum cervice curva habentem in collo iiij homines iacentes et teneat in manibus vulpem et vulturem. hoc sigillum ad collum suspensum ad omnes valet ad plantaciones et inventiones thesaurorum. Cuius argumentacio talis est lanam nigram puram absque tinctura (accipe) ut eam natura produxit et fac inde (fieri) culcitram que palea tritici impleatur et pulvinar similiter quod super culcitram ponatur (et) desuper dormias sompniabis omnes thesauros Regionis in qua fueris et qualiter eos habere possis. et est (cetera) alia virtus ei omnes egritudines bestiarum si bibant ex aqua in qua lotum fuerit sigillum illud omnino curat.

Sub marte si inveneris sigillum in iaspide rubeo sculptum hominem ad collum clipeum tenentem, et in capite galeam gestantem erectum tenentem gladium serpentem pedibus conculcantem. hoc ad collum suspensum gestans nullum licet fortissimum timere. nam in inimicis et contra omnes victor existit et valet maxime in ipsius martis die in qua gestanti forcius confert. Huius mane vis maior habundat.

Sub iove si inveneris in iacincto albo equum sculptum cocodrillum¹ super se depictum ferentem huiusmodi sigillum in omnibus causis et placitis valere cognoscas. Rebus et ceribus suis gestantem exornat. cunctis placidum decorum Carum amabilem habilem morigeratum demonstrat. huius melior in auro vis esse probatur.

Sub venere si inveneris in corneolo sigillum sculptum scilicet hominem sedentem et mulierem ante illum stantem cuius capilli ad renes descendant: (virque) sursum eos (respiciat) mulier(em). hoc sigillum in aureo annulo dicti pondi sigilli duodecies exequato ponas. mittasque sub lapide herbam terebentinam et ambram et si quem vel quam ex predicto anulo

¹ A blank space follows *cocodrillum* in MS. E.

tetigeris. tue reddet se obedientem voluntati. Cunctasque tibi mulieres (inclinantes) et obedientes faciet.

Sub saturno si inveneris in ematite sigillum taliter factum vel sculptum scilicet equum spumantem (et) fervidum et desuper virum sedentem sceptrum in manu tenentem. hoc sigillum his valet qui potestatem exercent. et tantam gratiam regendi ea que commissa fuerint confert eis et ceteras potestates gestanti. faventes exhibet huiusmodi sigillum in anulo ex auro et argento composito et ad eius sigilli pondus (duo)decies examinato poni iubetur. in quo eius virtus utilior esse cognoscitur.

Sub sole si inveneris sigillum in crisolito sculptum scilicet hominem altum et (nobilem) et accensa(m) in manu tenentem candelam. hoc sigillum gestantem divitem facit et debet hoc in auro purissimo poni in (quo) virtus utilior esse cognoscas.

Sub luna si inveneris sigillum in cristallo sculptum scilicet mulierem in una manu tenentem avem in altera piscem baiulantem. hoc sigillum in capiendis avibus piscibusque huiusmodi officii (executionibus) optime valere cognoscas. hoc igitur si ad manum venerit et gestare voluerit in argenteo anulo portetur. ita ut locus ille anuli in quo lapis ponitur. ab utraque parte perforatus ab extrinsecus videri possit.

[fol. 179] Si in aliquo preciosorum lapide sigillum taliter insculptum inveneris scilicet militem super equum tubicinantem et (arborem) ante illum sculptam. hoc venatoribus multum venandi gratiam confert. si ad tale exercendum opus secum illud gestaverit.

Si in aliquo preciosorum lapide sigillum (tali modo) (in)sculptum inveneris cornutum scilicet animal (et) equum gestantem inferius qui retro capram trahit dimidiam (si) inveneris huiusmodi sigillum in anulo plumbeo positum in alendis et domandis omnium generum animalibus sive bestiis gestatori suo maximam gratiam confert.

Si inveneris in (turchesio) tale sigillum virum scilicet flexis genibus sculptum sursum respicientem et pannum tenentem. pone in auro optimo et tecum caste et diligenter defer tibi que gratiam nimiam in emendis omnibus rebus sive vendendis accumulabit.

Si in pirite sigillum hoc modo sculptum inveneris turturem (scilicet) et olive ramum ore tenentem in argenteo anulo ponas et tecum deferas a cunctis miraberis multa que convivia tibi operabuntur et in illis conviviis ubi presens fueris nullus qui ad os manu dextera cibum deferat saturabitur. sed omnes te conspicient et mirabuntur.

Si in aliquo preciosorum lapide sigillum taliter sculptum inveneris scilicet scorpi(onem) et sagittarium inter se pugnantes

in anulo ferreo pone. Si vim eius cognoscere vis figuram eius in cera exprime et quoscumque ex eadem cera tetigeris inter se discordantes altrinsecus et male volentes perpetualiter facis.

Si in aliquo preciosorum lapide inveneris sigillum hoc modo sculptum arietem scilicet semibovem in anulo argenteo pone et quoscumque ex eodem tetigeris discordantes pacificabis.

Si inveneris sigillum in iacincto (marino)¹ hoc modo sculptum (semi)feminam et semipisces teneatque in una manu speculum et (in) altera ramum hoc sigillum in auro obrizo pone,² et vim talem cognosce anulum in quo sigillum fuerit in digito pone et sigillum cera cooperi et quod in pugnum versum strictum teneas et invisibilis quocumque volueris ire poteris.

Si in quolibet preciosorum lapide sigillum taliter sculptum inveneris scilicet arantem et desuper dominicam (manum) signum facientem, et aliquot stellas iuxta sculptas (tecum) (deferas) et me(s)ses et fructus regionis in qua fueris nulla tempestate periclitabuntur.

Si inveneris sigillum in iaspide viridi sculptum caput et collum ab humero et sigillum hoc in anulo argenteo vel eneo pone, et quocumque cum illo perexeris vel (navigaveris) sive in mari sive in fluminibus nullo modo periclitab(er)is.

Si in anulo has litteras sculpseris T.B.L.N.C.H.V.S.H.A. corpus tuum sanum et incolume ab omni egritudine et maxime in febribus et (ydropsie) servabit. In acquirendis multam gratiam patrat. facundum et amabilem in omnibus faciet in bello et in causis et in placitis gestatorem suum superiorem et victorem reddet. Mulieres in conceptu et in partu iuvabit. Pacem et concordiam et alia multa bona habenti et portanti dabit. ita si caste et honeste portatus fuerit.

Si in aliquo preciosorum lapide sigillum inveneris taliter sculptum scilicet basilisci ymaginem serene maris cuius pars una est femina altera serpens hoc sigillum tecum feras et omnia venenosa animalia sive reptilia impune (tetigeris).

[fol. 179 v.] Si inveneris in corneolo sigillum sculptum basiliscum et draconem pugnantes et caput bovis desuper (hoc) suspende ad collum et si aliqua marina bestia (sive ferali vel alia) quacumque pugnaveris devicta succumbet.

Si inveneris sigillum in gagate sculptum scilicet virum nudum et inflatum et alium bene (indutum) et coronatum et teneat in

¹ E marmoreo.

² Isidore, *Etymologiae* xvi, cap. xviii. 2 : 'Obryzum aurum dictum quod obradiet splendore; est enim coloris optimi, quod Hebraei ophaz, Graeci κερρὸν dicunt.'

una manu ciphum in altera ramum herbe pone in quovis anulo et omnis febricitans hoc secum deferens (per triduum) sanabitur.

Si inveneris sigillum in quovis lapide sculptum scilicet virum stantem cuius caput capiti bovis sit simile et pedes eius similes pedibus aquile hoc sigillum exprime in cera et ipsam ceram tecum porta et non invenies aliquem qui tibi male loquatur.

Si inveneris in diadoco sigillum sculptum scilicet virum magnum et erectum et teneat in una manu diabolum in alia serpentem et super virum solem et lunam et sub pedibus teneat leonem. Hoc sigillum pone in anulo plumbeo et sub lapide pone radicem arthemisie et radicem (feni greci) et porta tecum super ripam aque et invoca quemlibet de malignis spiritibus et habebis responsum de quibuscumque (quesieris).

Si inveneris in iaspide viridi obscuro sigillum sculptum virum stantem fasciculum herbarum deferentem ad collum. grossos renes. et amplas (scapulas) habentem hoc sigillum tecum feras et contra febres acutas tibi presidium erit. Si vero medicus fueris. in discernendis egritudinibus et in cognoscendis medicinis et in herbis et in dandis potionibus maximam gratiam dabit. Si autem lapis guttatus fuerit (gutta quasi sanguinis). pone in argenteo anulo. et si emoptoicus secum in digito tulerit mox curabitur. hoc sigillum habuisse dicitur galienus.

De lapide qui dicitur Sincicetus qui confert ydropicis.

Accipe serpentem fluviale vivum et suspende in (culcitra) line(a) tot(a) per caudam cum fune longa capite versus terram dimiss(um). et per v dies ingrediens ad eum hora v. noctis cum lucerna et stans a longe dices. Ego sum prothoplaustus de paradiso Adam. da mihi lapidem quem habes in ore tuo. Ista dices. v. hora noctis. per singulas noctes septies in septimana. et pone sub serpente vas cum aqua de fonte purissimo medio mane. et iactabit lapidem qui dicitur Sincicetus quem habet intra se in vase. et consumet aquam qu(a)e est in vase. quem tolles et ligabis cum fascia ydropici. et circumdabit eum. ut habeat circa se. aut super se. per iiij dies aut amplius quousque omnis humor desiccetur.

Si inveneris in lapide nigro peragone sculptum turturem. mitte eum in anulo plumbeo et ferentem non ledat ullum genus aque et ab omnibus eris amatus. maxime autem senioribus terre. Explicit.

F (p. 104).

B. M. Sloane 1784, fol. 8, fourteenth century, French.

¶ De figura.

Si inveneris sigillum sculptum scilicet figuram qui fert eum ex omnibus que vendit et emit lucem habere poterit / ita quod emptores investigabunt ab eo et omnes coadiuvabunt se in hospicium.

¶ De peragone.

Si inveneris in peragone aureo / ita quod avis sculpta teneat in ore folium et in conspectu eius capud hominis et vultum / qui fert anulum aureum in quo lapis fuerit erit dives et locuplex superfluous in divitiis et acceptus et honoratus ab omnibus hominibus.

¶ De Jacincto.

In Jacincto albo si inveneris sigillum sculptum in se virum scilicet Iovem habentem in capite coronam et sedentem super thronum quadrupedem et in unumquemque pedem super quatuor homines tenentes in collo eorum et ipsi quatuor viri sint stantes et erecti / et sit super capud Iovis titulus in modum sanctorum et manus sue sint erecte ad celum hic lapis mittatur in annulo argenteo ponderis tanti quanti lapis est / deinde habeat masticem et terebintinam et pone in cera / et fac in cera sigillum cum annulo / et da cui vis qui portaverit ad collum vel super se / et intret ad Regem vel ad potentem vel ad sapientem pura mente impetrabit certe quidquid ipse desiderabit vel voluerit.

¶ De Cristallo.

Si inveneris in cristallo vel in aliquo lapide precioso de duodecim lapidibus virum sculptum habentem vultum leonis et pedes aquile et sub pedibus eius draconem habentem duo capita et caudam dolicatam et in dextera manu sit baculus cum quo percuciat capita draconis pone hunc lapidem in annulo auricalci et sub lapide muscam et ambram / et hunc habeas tecum / et homines et femine et omnes spiritus inclinabunt tibi et obedient multiplicat facultatem [fol. 8 v.] et ampliat thesaurum sigilla cum eadem cera et da cui vis.

¶ De afestrosalino vel cristallino.

Si in lapide afestrosalino vel cristallino inveneris virum sculptum et ascendentem super aquilam habentem in manu virgam pone eum in annulo cupreo Rubeo mixto cum auricalco vel cupreo tantum Si quis induat hunc anulum die dominico antequam sol oriatur vincet omnem inimicum et suppeditabit eum et in die Iovis scilicet in bello et libenter obedient ei omnes

homines / sed oportet ferentem vestiri albis vestibus et abstinere penitus a carne.

¶ De paride.

Si inveneris in lapide paride qui dicitur aureus qui invenitur in monte ubi metallatur aurum scilicet virum sculptum equitantem et tenentem in manu frenum et in alia arcum tensum et habeat gladium cinctum in annulo aureo positus / neque in praeliis cuiquam nullus poterit Resistere Si quis lustraverit in oleum muscatum annulum et infert vultum suum cum eodem metuent eum omnes homines quicumque viderint nec ei Resistere aliquis poterit quoquo modo.

¶ De eodem.

In quolibet precioso lapide de duodecim si inveneris sculptum virum stantem et erectum et habentem lorica indutam et galeam in capite in manu gladium evaginatum vel cinctum mitte eum in annulo ferreo tanti quanti ponderis est lapis ferenti hunc praelio vel singulari certamine nemo resistere poterit.

¶ De Jacincto Cristallino.

Si inveneris in Jacincto albo vel citrino vel cristallino sculptam mulierem habentem crines super mamillas et in conspectu eius virum advenientem ad illum quasi cennum facientem In annulo aureo obrizo xij talenti tanti quanti ponderis est lapis / et mitte sub gemma ambram et lignum aloes et herbam que dicitur polipodium ferens hunc placabilis est hominibus et obediens ei [*sic*] / et si tetigerit cum annulo quemlibet mulierem procul dubio obediet ei in bonitate sua et si supposuerit capiti [fol. 9] suo nocte quecumque voluerit sompno videbit.

¶ De Jaspide.

In Jaspide rubeo si inveneris virum sculptum sedentem super piscem et super caput hominis pavonem positum super mensam in convivio nemo dextera manu comedet.

¶ De Magnete.

Si inveneris in magnete virum sculptum stantem et erectum et nudum et a dexteris eius puellam nudam stantem cuius capilli sunt circa capud eius ligati Ita quod vir teneat dexteram suam super collum puelle et sinistrum super pectus eius et vir aspiciat in terram / pone in annulo ferreo duodecim tanti quanti ponderis lapis est mitte sub lapide parum lingue possidon id est upepe / et mirra et alumen et de sanguine hominis quantum lingua pensat ferens annulum manebit invictus et nullus inimicorum poterit resistere in conspectu eius sive in bello sive alibi nec latro intencionem rapiendi nec fera impediens poterit intrare domum in qua predictus lapis fuerit si epilepticus tulerit sanabitur / sigilla cum ea ceram rubeam

et pone ad collum canis quamdiu ille fuerit latrare non poterit Si quis tulerit inter latrones vel inter inimicos nichil ei nocerunt nec canes etiam latrabunt et si quis eum gustaverit caveat ne tangat sanguinem nec ferrum in ignem mittat nec feram nec avem percuciat / annulum super se habens comedat hunc purum habuerit.

¶ De corneolo.

In corneolo si inveneris virum florem in manu tenentem hunc lapidem pone in annulo stannea et fiat a multis in die lune vel veneris per tres horas Prima / octava / duodecima et tange quem volueris.

¶ De Jaspide.

Si inveneris in Jaspide ita sculptum virum barbatum inter duos tauros vulturem baiulantem in manu et in collo eius capud hominis et vulpis hoc sigillum usque ad omnes plantaciones et ad omnes culturas et ad omnes in[fol. 9 v.]venciones thesaurorum et ad bellum et ad primum. Invidiam et virtutes convertit in caritatem cum multis infirmitatibus / quando et si quis super eum portaverit fugient serpentes a facie eius et homines subiicient ei / potens autem super eum cui mala vult irrogare / si epilanticus eum sanabitur / Similiter si lavet in aqua fontis in qua non luceat sol et postea sanabitur et si potetur cum aqua odelli vel feniculi vel rute expellat scilicet infirmitates asmaticorum et mulitorum [?] et malignum quod ex nigris coloribus sic et sepeliatur in fonte vexatur aqua et crescit ut fluvius portet in collo ab eo omnem amorem et vexacionem malorum spirituum / et si piger potet eum fiet impiger / Si habueris sigillum istud et velis habere cum sua propria virtute annulum ferreum compone ponderis xij tanti quanti lapidis et impone et fer tecum.

¶ De Jaspide.

Si in jaspide inveneris sculptum scilicet virum stantem et tenentem falcem in una manu super capud suum et sub pedibus parum de radice squille / portans sit securus ab omnibus inimicis suis et si obviaverit ei nullus erit ex illis qui sibi male loquatur.

¶ De Amatiste.

Si inveneris in Amatisto vel in aliquo lapide sigillum sculptum scilicet virum super draconem et in manu gladium / hunc pone in annulo plumbeo vel ferreo Si portaveris eum in digito obedient tibi omnes spiritus qui habitant in tenebris et Revelabunt tibi thesauros ubicumque fuerint.

¶ De Echite.

Si in echite qui invenitur in nido aquile inveneris sigillum sculptum scilicet aquilam stantem in eo mitte eum in annulo

plumbeo portans annulum acceptus et amatus erit ab hominibus omnibus / etiam animalia obedient ei / Et si fuerit sculptus piscis in predicto lapide ferens eum pergens piscari multos capiet pisces / et si inerraverit inter feras malignas eum non ledent ymmo fugient ab eo.

[fol. 10.] ¶ De Onicino.

Si inveneris in Onicino veneto idest marino sigillum sculptum scilicet hominem tenentem in manu sua mucronem in quovis annulo ponas eum / querens hunc erit veneratus et ab omnibus timoratus et ab omnibus dominatoribus et principibus terre multum honorabilis.

¶ De gallante.¹

Lapidem hunc quidam vocant orachitem / alii vero leme / alii grassaten egiptij smaragdum / alii galbatem / dicunt magi vero senechitem continet hic lapis omnia in se que destinaverit omnibus lapidibus / sed penes canes magistri magorum appellavit eum super omnia vocabula sua litargicum quia omnem malorum oblivionem facit / et inutilibus negociari / laudat autem eum quia nullus lapis tantum et tantas habeat virtutes non exaudiri facit magos idest magicam scripturam et ideo qui experti sunt eum et mirati magica occasione solum lapidem pre omnibus ceteris efficacissime omnibus lapidibus decoraverit et lapis memoratus galantus dicitur qui deficiente muliere a lacte facit eam habundare / Sic iube ergo ut mulier lavetur ieiunia tribus diebus deinde tritum lapidem dabis cum mulsa vel cum aqua bibere sufficienter et continuo habebit lac puram et optimam super omnibus efficientibus lacte / ut lac excucias agas sic oriente sole habeas tritum lapidum cum lapide cum aqua quam [] nodia superaspergas et miraberis / et sic cum laborantibus hoc feceris sanabit et facundioribus facundiores habebis / litargum dicitur quia mala preterita et rixas in oblivionem duxit omnibus hominibus nam quicumque eum habebit ut ita scriptum est et si ostendatur Regi vel alicui potestati propria in oblivione et culparum suarum multitudinem oblivisci facit / graciosum quoque facit et peritum et facundum et efficacem ad impetrandum / et persuadentem omnibus hominibus et deo peramabilem reddit et sanctissimum si deo optulerit propiciabitur / deus viribus istis gratum et beniuolum omnibus facit [fol. 10 v.] omni fantasmatori resistit et portans in utrumque facinabiliter tracies dicitur quia tenax est et potest et iudici ferenti se praestat et in causis vincere facit.

¶ De sigillo cuiuscumque lapidis.

Si inveneris sigillum sculptum in quocumque lapide in quo equis alatus quidem pegasus optimus est militantibus et ni

¹ Cf. Damigeron xxvi 'De Galactide' (p. 204).

campestri belle praebebat audaciam bellantibus et velocitatem et dicitur etiam liberare equos ferentes hunc lapidem super se ab infusione / et a ceteris infirmitatibus hoc autem preest anxietati et vocatur belloro fons id est fons bellorum.

¶ De eodem.

Si in quocumque lapide inveneris sigillum sculptum in quo sit hercules genu flexo habens in dextera manu clavum interficientem leonem vel aliud monstrum / si quis hunc lapidem in campestri bello vel pedestri victor existet / hic enim lapis pugilibus singulare praesidium est.

¶ De eodem.

Si in quocumque lapide inveneris sigillum sculptum scilicet in quo sit ursus vel serpens dividens utraque ursas / hic reddit hominem astutum constantem et in proposito manentem et hominibus placentem.

¶ De eodem.

Si inveneris in quocumque lapide sigillum sculptum in quo sit saturnus habens in dextera manu falcem / hic lapis reddit ferentem se potentem cuius potestas semper crescit quamdiu habuerit.

¶ De eodem.

In quocumque lapide si inveneris sigillum sculptum in quo sit mercurius habens alas in pectore in sinistra manu virgam et sub pede serpentem involutum habens hunc tanta habundabit sciencia et facundia ut nemo ei resistere possit et perpetuo gaudebit sanitate gratus deo et omni populo.

¶ De eodem.

Si inveneris in quocumque lapide sigillum sculptum in quo sit dromedia¹ que habet crines persos et manus remissas ille lapis in quo sigillum tale inveneris habet potestatem [fol. 11] reconciliandi amorem inter virum et mulierem et inter antiquos amatores.

¶ De eodem.

In quocumque lapide inveneris sigillum sculptum in quo sit ea de [sic] pia virgo² habens manus suas extensas ad modum crucis et circulum in capite et cathedra sedens / hic lapis est solamen post laborem Requies vero post infirmitatem / hic fessa debilia corpora reparat portantem in perfectissimam sanitatem custodit.

¶ De eodem.

Si inveneris in quocumque lapide sigillum sculptum in quo sit sagittarius qui habet cinctum serpentem / capud illius teneat in dextera manu et in sinistra caudam / hic lapis sive gestatus sive habitus liberat hominem a veneno sumpto et [] siue nociva.

¹ Andromeda.

² Cassiopeia.

De eodem.

In quocumque lapide si inveneris sigillum sculptum in quo sit serpens habens supra dorsum urnam et supra caudam corvum / qui hunc lapidem habet omnibus habundabit bonis astutus providus / in cunctis rebus erit creditus hic potest lapis resistere omni nocuo calori / hic enim a cancro sub qui [*sic*] mittit capud suum habet corpus suum [] usque ad centaurum ad quem dirigit caudam.

¶ De eodem.

In quocumque lapide si inveneris sigillum sculptum centaurus habens in sinistra manu leporem suspensum in cultello et dextera baculum in quo est bestiola infixa et in lebetes suspensa hic lapis Reddit ferentem se perpetuo gaudentem et cum dictum centaurus fuit magister agillis¹ scribit hunc in manu sua.

Si inveneris in quocumque lapide sigillum sculptum in quo sit sacrarium medio capsule ferentis sacra hic reddit ferentem se perpetua virginitate [] uatum et facit ipsum deo et hominibus gratum licet sequatur scorpionis cetus habet in ventere / et in fine piscem habens Rubrum magnum in dorso et in ventere aliud et serpentinum (fol. 11 v.) capud sumptus et superius / et qui sic sculptum portaverit erit felix in terra et mari prudens et amabilis / et si quae sibi oblata fuerint recuperabit.

¶ De Eodem.

In quocumque lapide si inveneris in quo sit navis habens scilicet velum altum et excelsum ferens eum in omni tempore et negotio erit superior.

¶ De Eodem.

Si inveneris sigillum sculptum in quo sit canis qui canis est leone cum leo sit ignee et sicce nature futuram ydropisim non pertimescat neque pestilenciam neque canes neque communes morbos.

¶ De eodem.

Si inveneris in quocumque Iaspide sigillum sculptum in quo sit Iupiter habens formam hominis et capud arietes / Portans diligitur ab omni creatura et si aliquid petierit ab aliquo impetrabit.

¶ De eodem.

In quocumque lapide si inveneris sigillum sculptum in quo sit figura persei habens in dextera manu ense et in sinistra capud gorgonis ille reddit securum ferentem se a fulmine et tempestate et ab invidia et a demonum incursu.

¹ Achillis.

¶ De eodem.

Si inveneris in quocumque lapide sigillum sculptum in quo sit libra vel gemini vel aquarius / hii calidi sunt et aerei et occidentales hii liberant procul dubio ferentem se / a quartanis febribus et a paralisi et faciunt deo et ab omnibus placentem.

¶ De eodem.

In quocumque lapide inveneris sigillum sculptum in quo sit cancer et scorpio sive piscis / hii frigidi sunt et aquatici et septentrionales / et defendunt se ferentes ab ethica et terciana febre atque causon quia hii consecrati sunt perpetua consecratione.

¶ De eodem.

Si inveneris in quocumque lapide sigillum sculptum in quo sit sol sive luna ille lapis perpetua consecratione est consecratus / et semper feras tecum bonam ducis vitam.

[fol. 12.] ¶ De eodem.

In quocumque lapide si inveneris sigillum sculptum in quo sit aquila que preest capricorno ille lapis ferentem veteres et novos honores acquiri faciet.

¶ De eodem.

In quocumque lapide si inveneris sculptum in quo sit color [sic] qui preest aquario ille lapis procul dubio liberabit te a paralisi et a febre quartana.

¶ De eodem.

In quocumque lapide si inveneris sigillum sculptum in quo sit taurus virgo capricornus hii sunt frigidi meridionales consecrati perpetuo reddunt securos et a synocha.

¶ De eodem.

Si inveneris in quocumque lapide sigillum sculptum in quo sit aries leo sagittarius igneus est et orientalis facit ferentes gratos deo et hominibus / et liberat eos a febribus cotidianis et ab ydropisi et reddat eos facundos et ingeniosos.

¶ De eodem.

In jaspide si inveneris sigillum sculptum in quo sit cervus vel venator seu canis vel lepus ille lapis habet potestatem curandi demoniacos lunaticos et in nocte militantes atque freneticos.

¶ De eodem.

Si inveneris in lapidibus sigillum sculptum in quo sit mortuus¹ armatus aut virgo stellata² cum veste confusa tenens laurum hic lapis perpetua consecratione consecratus est / pulchrum facit gestantem et facilem et potentem et omnia perficientem et qui eum portaverit a puericia nunquam mergetur neque vexabitur.

¹ Sic: 'Mars'.

² Sic: 'stolata'.

¶ De eodem.

In Iaspide si inveneris sigillum sculptum in quo sit lepus quamdiu illum habueris ab aliqua demoniaca umbra ledi non poteris.

¶ De eodem.

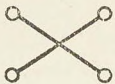
Si inveneris in quocumque lapide sigillum sculptum in quo sit homo habens in manu sua palmam hic lapis reddit ferenti se potestates et principes benevoles et placitos.

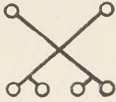
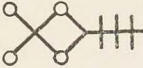
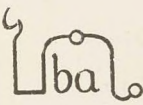
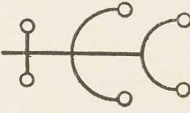
¶ De eodem.

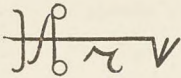
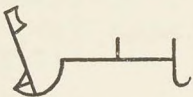
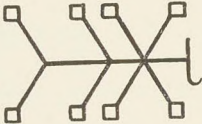
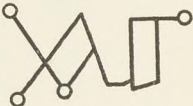
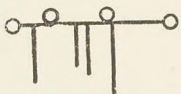
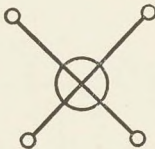
In quocumque lapide si inveneris sigillum sculptum in quo sit [fol. 12 v.] Orion habens in manu sua ense[m] qui est in fine tauri in omni bello victor existet.

G (p. 108).

Bodleian MS. e Museo 52, fols. 44-7, fifteenth century, English.

<i>Stelle</i>	<i>Lapides</i>	<i>Herbe</i>	<i>Caractus</i>	
Aldebaran 1a geminorum 6 aquilonaris	Carbunculus sive rubinus	Arnabulla		Semen Arnabulle positum sub carbunculo cum caractere demonstrato luna iuncta cum ascendente vel celum mediante augmentat divicias et exhibet magnum honorem deferenti.
2a Pliades	Cristallus	Feniculus		Semen feniculi cum thure et argento vivo positum sub crystallo cum caractere correspondente [sic] luna coniuncta cum pleiadibus ascendente vel in medio celi custodit lumen oculorum aggregat demones et spiritus mortuorum vocat ventos et facit scire secreta et abscondita.
3 Caput aigol 18 tauri 23 aquilonaris	Diamas	Eleborus nigra		I. de eleboro cum tanto artamesie ponatur sub diamante etc. confert animositatem et audaciam custodit membra ille facit vindictam super quos volueris.

<i>Stelle</i>	<i>Lapides</i>	<i>Herbe</i>	<i>Carectus</i>	
4 Alhayhoch 14 gemino- rum 23 aquilona- ris	Saphirus	prassis sive maru- bium		Semen marubii cum aliquanto de menta et Argemisia et mandragora positum etc. exaltat hominem in honorem et reddit eum graciosum coram regibus et nobilibus et tollit malos dentes et est valde medicinale.
5 Canis maior 6 Cancri 40 meridio- nalis	Berillus	Savina		I. de savina cum Arthemisia et dragancia et parva de lingua colubri positum auro sub berillo etc. confert gratiam cum spiritibus aeris et gentibus terre et mittit pacem et concordiam inter reges et alios potentes et inter virum et uxorem.
6 Canis minor 18 cancri 17 meridio- nalis	Achates	Solsequium		(F)los Solsequij cum flore pulegij positus etc. dat gratiam apud deum et homines reddit hominem graciosum super spiritus Aeris dat magnum posse contra magicam et conservat hominem sanum.
7 Cor Leonis 12 leonis 1 aquilonaris	Gergonsa sive Granatus	Celidonia		I. de celidonia cum Arthemisia et mastico ponatur etc. aufert iram et melancoliam reddit hominem temperatum et dat bonam gratiam deferenti.
8 Ala corvi 2 li. 15 Meridio- nalis	Onichus	lappacium maius		Semen lappacij maioris cum folio et radice cum lingua rave positum etc. facit hominem iratum animosum audacem et male cogitantem et male dicentem et facit prava sompnia somnari et facit fugere demones et proficit contra homines demones et malos ventos.

<i>Stelle</i>	<i>Lapides</i>	<i>Herbe</i>	<i>Carectus</i>
9 Spica 15 li. 2 Meridio- nalis	Smarag- dus	Salvia	
10 Arturus 12 li. 31 Aquilo- naris	Iaspis	Plantago	
11 Cauda urse maio- ris 18 virginis 54 aquilo- naris	Magnes	Sicoria	
12 Lucida corone scorpionis 45 aquilo- naris	Topasius	Rosmari- nus	
13 Cor Scorpionis 1 sagittarii 4 Meridio- nalis	Sardinus cum Amatisto	Aristo- logia longa	
14 Vultur cadens 6 capricorni 62 aquilo- naris	Crisolitus	Satureia	

I. de salvia cum trifolio pervenca Arthemisia et mandragora positum etc. In auro augmentat et accumulat divicias devincit causas et eruit hominem ex malo et ab angustia.

I. de folio plantaginis cum semine sive radice ponitur sub Iaspide praecipue viridi etc. aufert febres et restringit sanguinem.

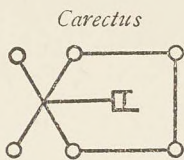
I. de sicoria cum Arthemisia et flore pervencae ponitur etc. valet contra eius incantaciones et contra siccicia et dat securitatem eunti et si cum istis ponitur de dente lupi proficiet raptoribus.

I. de herba vocata ros marinus cum aliquanto trifolij et edere ponitur etc. reddit hominem castum dat amicitiam et honorem apud deum et homines.

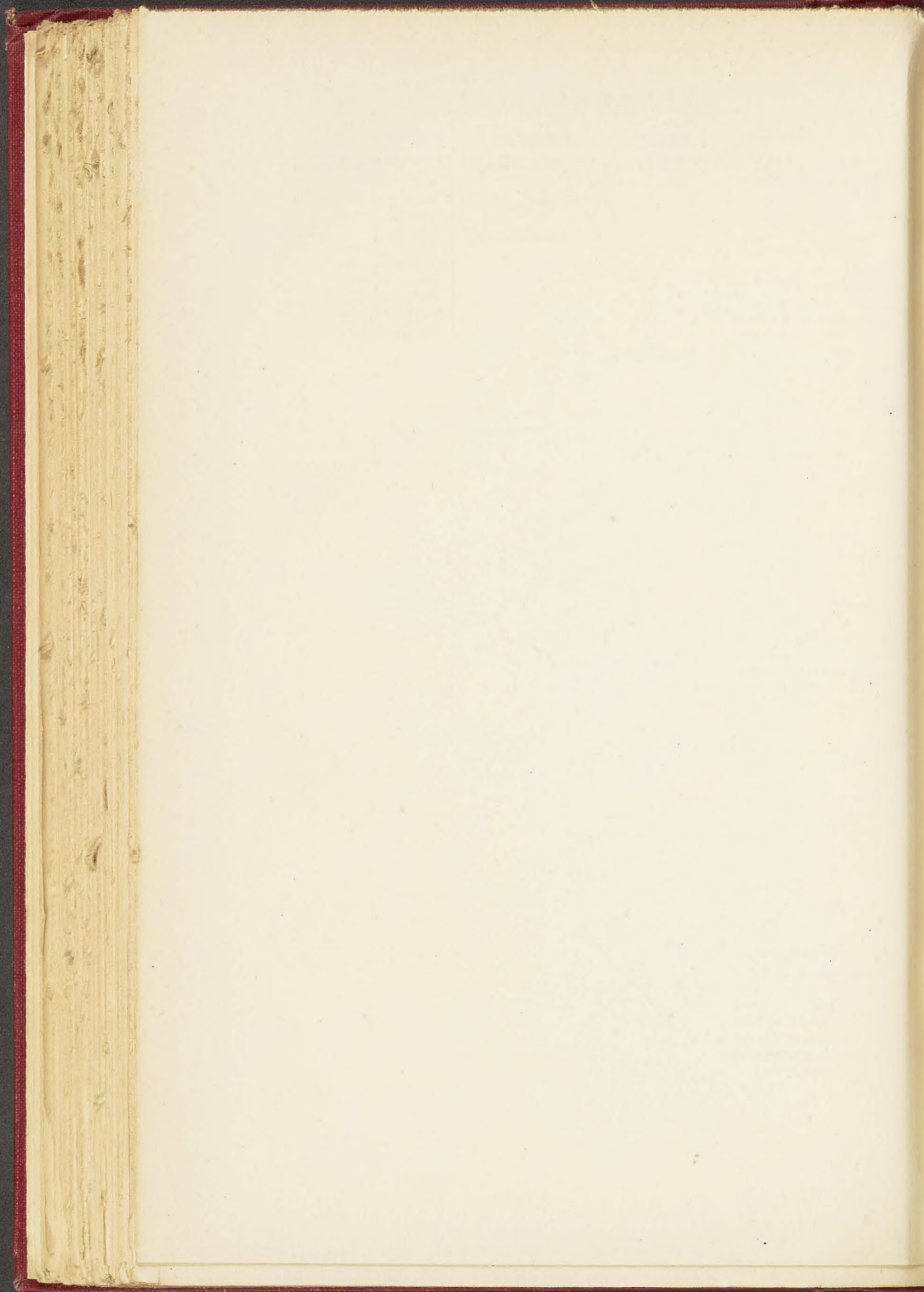
I. de aristologia longa cum parvo de toxico ponitur etc. reddit hominem bene coloratum memorem pro vectum et intelligentem et apparere sapientem et fugat demones.

I. de Satureia cum tanto de herba que dicitur fumus terre et cum parvo de lapide qui turonsa dicitur etc. dat gratiam super bestias conservat a scabie videlicet contra demones nocturna fantasmata et timores.

<i>Stelle</i>	<i>Lapides</i>	<i>Herbe</i>
15 cauda capricorni	Calce- donius	Maiorana



I. de maiorana ponitur
sub calcedonio cum
caractere proprio luna
coniuncta caude ca-
pricornij in ascen-
dente dat gratiam in
causis meliorat do-
mum in qua est et
facit eam semper incol-
lumem et augmentat
omnimodas divicias.



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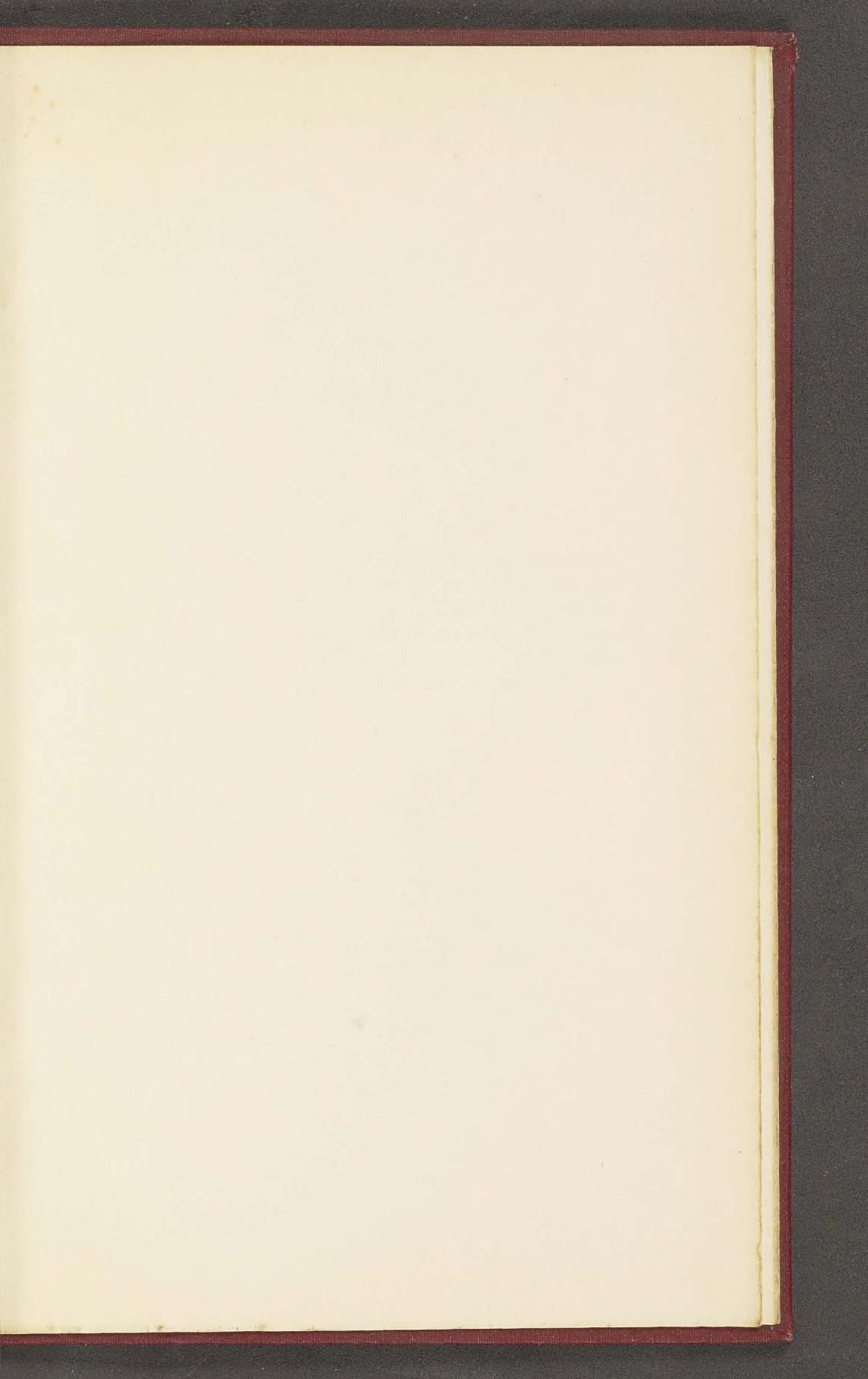
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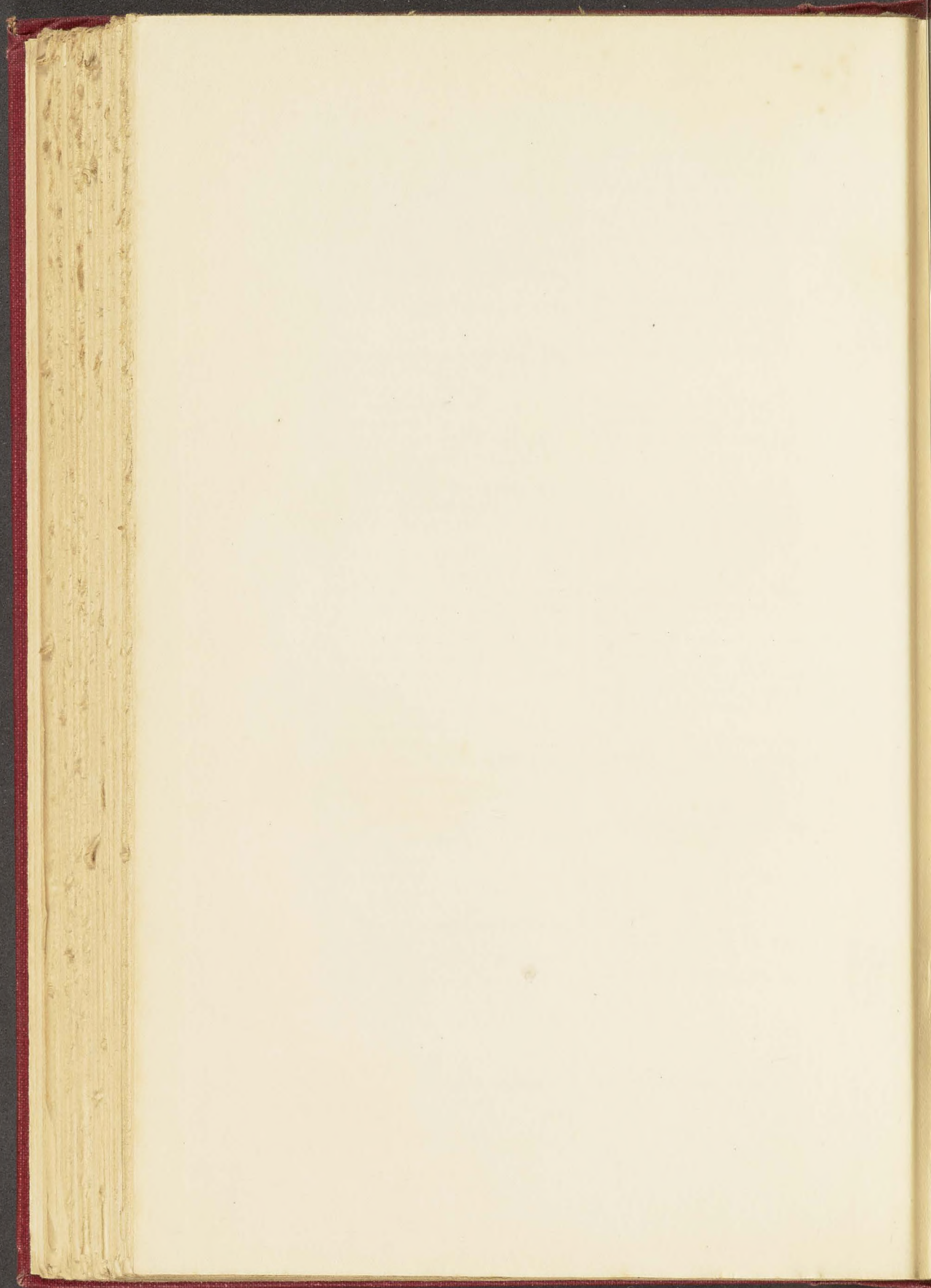
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Another cloth binding has been noted: it carries the Oxford University badge on the bottom of the spine over the word "Oxford." There is also a blind single-rule frame on both covers. On the basis of text, I have not been able to decide which version was issued earlier.

J.Sinkankas

